

Making progress and catching up: comparative analysis for social policy-making

Richard Rose

Development is a concept that applies to the whole of society, and not just to a single aspect, such as the economy. Economic development is meaningless or misleading if it is not associated with the betterment of the living conditions of the mass of the population. To measure development we must first know where we are today. This is not as easy as it sounds, for data collection often involves time lags, and the interpretation of data can stimulate both theoretical and political disputes.

In order to measure change, we need to know where we have been in the past. If data is collected frequently (not the case of decennial censuses) and consistently over a long period of time (impossible in a country with a high inflation rate), then it is possible to calculate rates of change, to see how quickly or slowly society is altering. Annual birth rates can fluctuate significantly from year to year; the demographic age structure of the population alters much more slowly. Given such information, we can determine in which direction we are moving and, if there is consensus about goals, whether or not we are making progress.

Development concerns the future as well as the past. Many different goals can be the object of development, a fixed target such as achieving the standard of living of an advanced industrial society, or a moving target, such as a

higher national income next year by comparison with this. When the object is a target that moves in more than one direction, then the object of policymaking is not to steer a straight course but to alter direction in relation to changing circumstances, a familiar point in debates about tradeoffs between policies targeting inflation and unemployment, or higher industrial production and environmental protection.

Social policy is progressive, not static: the object is to improve social conditions and not just maintain present levels of welfare. In the second half of the twentieth century, great improvements in social conditions have occurred throughout the world. Even if current standards of welfare are deemed not good enough, they are almost invariably better than 50 or 100 years ago. Progress involves comparison across time; it occurs when social welfare today

is better than in the past. Policymakers normally think of progress in national terms, making comparisons with their own recent past. As long as the trend in the percentage of young people going into further education is rising or infant mortality falling, there is progress within a national context.

Catching up involves comparison across space too (cf. Rose, 1991). How does our nation compare with other countries? The dissemination of data by such bodies as the Organisation

Richard Rose is Director of the Centre for the Study of Public Policy, University of Strathclyde, Glasgow G1 1XH, Scotland. This article grows out of his work supported by UNESCO as a Research Associate of the European Centre for Social Welfare Policy and Research, Vienna, and studies of *Lesson-Drawing in Public Policy* (1993) and *Inheritance in Public Policy: Change without Choice in Britain* (1994). It is also related to his continuing programme of survey research in post-Communist societies of Central and Eastern Europe and the former Soviet Union.

for Economic Co-operation and Development (OECD), the World Bank, and the United Nations makes it easy to compile tables showing whether a country ranks high or low among a league of countries. Cross-national comparisons can be a stimulus to action when people learn that their country is not doing as well as others, but discouraging if national policymakers decide it is impossible to catch up with top-ranking countries. Comparison becomes invidious if every country but one is said to be 'behind' or 'failing' because it does not rank first. Current differences between countries can be converted into units of time, the number of years it has taken one country to catch up with the achievements of others – or an estimate of whether it would take only a few years, a decade, or a quarter- or half-century for one country to catch up with a standard that other countries have already reached.

Since welfare is highly valued everywhere, in countries ranking below average policymakers usually want to make progress *and* catch up with societies where welfare is higher. The possibility of catching up is a function of the distance a country lags behind the target and the speed with which it makes progress. Time-space analysis takes both these factors into account. It complements static statements, such as 'country X is 25 per cent below the OECD mean', by calculating how many years it would take the country to reach that figure at current rates of progress. If the rate of progress is 2 per cent per year, it would take 15 years to catch up, but if it progresses at 4 per cent annually, catching up would take less than eight years, provided that the target did not itself also show progress.

Time-space analysis provides an alternative to comparisons based upon geographical propinquity. It takes only a matter of minutes to travel from the poorest to the richest parts of a capital city, but it will take decades or generations for individuals to make that transition. Thinking of time is specially relevant in Asia, for the geographical distance between countries such as South Korea and Japan or the People's Republic of China and South Korea are fixed, but income differences are variable. It is also relevant in Central Europe, for it takes about an hour to travel between the capital of Austria (Vienna) and the capital of Slovakia

(Bratislava), but it can take 10 or 20 years to bridge some gaps between people living in a social market society as against a historically planned system.

I. Making progress: comparison across time within a nation

Comparison is necessary for evaluation. To be told that national life expectancy is 68 years is to be given a fact, but this is insufficient information for evaluating life expectancy as satisfactory or unsatisfactory. Across time, two very different patterns can be identified: a reasonably consistent trend up or down, or else a cyclical pattern involving frequent reversals of direction. The concept of economic development implies a steady upward trend in economic conditions; the same is true in most fields of social policy. But not all changes in a society are necessarily for the better; trend data on crime rates normally show conditions worsening. Inflation and unemployment rates tend to be cyclical; the more inflation or unemployment rises, the greater the pressure on government to do something to bring these rates down. Low rates of inflation and unemployment are not permanent but of indefinite duration, sooner or later reversing as part of economic cycles that generate fluctuations within an economic system registering long-term progress.

To understand where we are at present, we must have bearings in time. National policymakers intuitively make comparisons between present and past achievements within their own ministry and within the country. If only two points in time are used, last year and this year, conditions can be described as remaining the same, or getting better or worse. This is a favourite comparison of politicians oriented towards a short-term electoral cycle.

In social welfare, the simplest method of assessing progress is to compare present with past performance within a nation. Insofar as progress is slow, it is necessary to monitor trends over decades rather than from one quarter, one year or one Parliament to the next. National statistical offices normally conduct a census, the biggest inventory of a nation's social conditions once every ten years. It takes 12 to 16 years

for a young person to complete a full cycle of education. Since adults rarely return to full-time education, the educational level of the adult population is raised by the death of the oldest and least educated generation and its replacement by better educated younger cohorts.

The test of time

The starting point for comparison across time is past achievement. Official data are usually presented in tables or graphs giving data for previous years as well as current achievement. Confining comparison within a nation avoids problems of standardizing measures that arise in international comparisons, for bureaucratic inertia produces a high degree of consistency. National governments usually apply the same methods of measurement from one year to the next. The exception relates to measures that rely upon money, for inflation has so altered the value of money that national units of currencies, whether dollars, yen, roubles or pesos, are not a constant unit of value for more than a few years at best, and at worst for only a few months or a few weeks.

There is a high degree of political consensus about the meaning of progress in social welfare: lower infant mortality, longer life expectancy, a high proportion of the population in secondary and tertiary education, the reduction of poverty, and so on. Social indicators are usually institutionalized only after the achievement of such a consensus about goals. Challenges to consensus definitions are newsworthy precisely because they are different, even deviant, by comparison with national norms. Insofar as there is a consensus about the direction of change, the results of comparing past with present performance are easily evaluated. As long as there is a trend in the desired direction, the outcome can be described as progress.

Electoral competition institutionalizes debate about whether a given rate of progress is 'good enough', and demands that policies and personnel be changed. The demand will be louder still if there is a slowing down of the rate of progress. If the trend is negative, this can create dissatisfaction and agreement about a need to do something. There is likely to be political controversy about who is to blame for

unsatisfactory conditions, and what new policy should be adopted.

In the analysis of social conditions, national totals convey limited information, because they aggregate data about very different kinds of people. Disaggregation is therefore necessary; the choice of disaggregation can be determined by administrative or political priorities (cf. Simon, 1969, p. 99ff). National policymakers are usually intraverted when they make comparisons across space, examining differences between regions. National data is routinely reported by regions that are meaningful in administrative, political and social terms. If the benefits of economic development were concentrated solely in the cities of developing nations or in the suburbs of advanced industrial nations, this would have controversial implications for public policy. The post-1945 welfare state has emphasized territorial justice, i.e. the idea that all citizens in a country should have the same right to education, health care and social security. The re-unification of Germany illustrates the significance of the choice of regions for comparison. Prior to 1990, inter-regional comparisons of employment and income were made between eleven West German *Länder* of the Federal Republic. Comparisons that must include five new East German *Länder* introduce substantially greater inter-regional variations.

Disaggregation by social groups spotlights the welfare of different classes, men and women, ethnic groups and races. The national trend then becomes one among several figures in a graph. By definition, some social groups will be above average and others below average. Studies of the distribution of welfare within a country start from the observation that there are inequalities in welfare distribution. Even if all groups show evidence of increasing life expectancy, comparison can reveal whether or not lower-ranking groups are catching up or whether inequalities are increasing.

Different ways of viewing progress within a nation

The number of deaths per thousand of newborn infants is not only important as a measure of maternal care but also as a classic indicator of the overall health of a nation. Infant mortality thus offers a straightforward illustration of



Production line in Samsung electronics factory, Korea 1994. Korea has reached levels of technology in mass production rivalling those of countries which only a few decades before were far more advanced. Pierre Charvet/REA

different types of within-nation comparison. The United Kingdom is a useful example, for its infant mortality rate has been close to the OECD mean for decades, and division into four readily identifiable parts – England, Wales, Scotland and Northern Ireland – simplifies within-nation comparison across space and time. Table 1 has three parts because the same set of figures can be used for multiple comparisons.

If we simply look at the number of infant deaths per thousand at one point in time, no conclusion can be drawn from the figure for the United Kingdom as a whole, 7.4 deaths per thousand in 1990. To interpret this figure, we need additional information. If comparison is confined to a single point in time, then reading down the column headed 1990 in Table 1(A) shows relatively small differences in the absolute rate of infant mortality; it is only one death per thousand between the best nation, Wales, and

the least good, England. When infant mortality for each nation is calculated as a percentage of the United Kingdom mean (=100), then Wales is 7 per cent better than average and England 7 per cent worse (Table 1(B)). However, because a single column of data refers to only one point in time, it cannot show whether progress has occurred; that requires cross-time comparison.

Reading across each line in Table 1(A) shows the extent of progress across four decades. The longer the period of time examined, the greater the amount of progress. In the United Kingdom overall, infant mortality was reduced by 23.7 deaths per thousand, a reduction of 76 per cent from 1951 (cf. Table 1(A), 1(C)). In absolute terms, the biggest improvement has occurred in Northern Ireland, where infant mortality fell by 33.7 deaths per thousand, or 82 per cent.

TABLE 1. Three ways of viewing progress in infant mortality

	1951	1961	1971	1981	1990	Total change N
(A) Absolute change compared to region's own past						
	(Deaths per 1,000 births)					
England	29.5	21.3	17.5	10.9	7.9	-21.6
Wales	36.4	24.0	18.4	12.6	6.9	-29.5
Scotland	37.4	25.8	19.9	11.3	7.7	-29.7
Northern Ireland	41.2	27.5	22.7	13.2	7.5	-33.7
United Kingdom	31.1	22.1	17.9	11.2	7.4	-23.7
(B) Comparing national rates at one point in time: each nation as % of UK						
England	95	96	98	97	107	12
Wales	117	109	103	112	93	-24
Scotland	120	117	111	101	104	-16
Northern Ireland	132	124	127	118	101	-31
(C) Percentage change compared to region's own past						
	(1951 = 100)					
England	100	72	59	37	27	-73
Wales	100	66	51	35	19	-81
Scotland	100	69	53	30	21	-79
Northern Ireland	100	67	55	32	18	-82
United Kingdom	100	71	58	36	24	-76

Source: *Regional Trends* (London: Her Majesty's Stationary Office, annual volumes).

Time-space analysis involves between-nation comparison of national trends. It thus concentrates attention on similarities and differences between lines. The data in Table 1(A) show that not only has each nation of the United Kingdom made progress through the decades, but also that the absolute differences between the nations have been substantially reduced. In 1951 there was a difference of 11.7 infant deaths per thousand between England and Northern Ireland. By 1990 this was reduced to one death per thousand. Comparing lines in Table 1(B) shows that progress has involved catching up; the distance between the leading and lagging nations has dropped from 37 to 14 percentage points. Table 1(C) confirms that although England has dropped from top to bottom in this United Kingdom league table, it has not 'failed', for its infant mortality rate has improved by almost three-quarters. Wales and Northern Ireland have improved their relative positions because they have been progressing at a faster rate than Scotland and England.

Discontinuities in trends

Within-nation trends are intuitively appealing to policymakers, for this is the world they know best, and the society to which the government is accountable. But long-term comparisons presuppose a great deal of stability within society, and the specific policy domain subject to measurement. Anyone who has worked with historical statistics immediately becomes aware of the great disruption caused by World War I, leading to the disappearance of major multinational empires within Europe, for example Austria-Hungary and Germany. World War II produced significant border changes in Central and Eastern Europe, and very large forced movements of population (cf. Mitchell, 1975; Flora, 1983). Anti-colonial movements have greatly expanded the number of independent states taking responsibility for their own country's welfare.

The longer the period of time covered, the greater the likelihood that a statistical indicator

changes its significance. This is most obviously the case of money measures. If we are interested in 'hard' measures of change in society, then money cannot be used, because nothing is 'softer' than the concept of a currency of constant value over a long period of time. The basket of goods reflecting household living standards has not been constant since World War II; it has been transformed by the invention of new consumer goods such as colour television, by automobiles becoming mass consumption rather than elite goods, and by the technical upgrading of many products. The relative stability of the Deutsche Mark today has not been matched by stability in the national bank issuing the currency: older Germans have lived through four or five different currencies and central banks.

Normative changes also alter the meaning of social data. In a traditional society, particularly one where Catholic doctrines have been dominant, a high birth rate and a low rate of employment of women in the paid labour force was considered desirable. In contemporary societies the opposite tends to be the case: low birth rates and a high level of female participation in the labour force are often considered positive achievements.

In Eastern Europe, discontinuities have been extreme, a shift from a command to a market economy and from authoritarian to democratic rule. Insofar as costs are measured in the official national income accounts, then people may be thought much worse off economically. Insofar as political values are deemed important, then people report themselves much better off because they have more freedom (Rose and Haerpfer, 1994). It is an open empirical question to what extent the disruption of state economic structures will have a negative short-term effect on the population; in extreme cases, such as former republics of the Soviet Union, basic social conditions such as infant mortality may be deteriorating rather than showing signs of improvement (cf. UNICEF ICDC, 1993).

II. How do we compare with other countries?

Increased communication, travel and economic interdependence between countries is making

it increasingly important to make cross-national comparisons in order to evaluate national policies. The European Union is the most striking example of the importance of evaluating social conditions across the boundaries of its many Member States. The EU has the legal authority to promote harmonization in social policy: the Single Europe Act is intended to advance economic integration, and it has a mandate from Member States to promote convergence in living standards across nations. Education, social security and health standards deemed good by comparison with a country's own past may not be good enough in an increasingly interdependent world. In an open international economy, interdependence is not confined to countries that have formal links through treaty. The advent of global communication networks makes it possible for anyone with a television set to make comparisons between his or her living standards and those seen on screen. National governments too are increasingly aware of what other countries are achieving.

How high (or low) do we rank?

In an interdependent world, comparison across national boundaries is merely inevitable. National policymaking institutions belong to a host of international organizations that routinely compile and publish statistics comparing the performance of advanced industrial societies on a host of measures of social welfare. The World Bank and the United Nations do so for developing countries too. These activities prompt the question, 'How does our nation's welfare compare with others?', and the data can be marshalled to provide answers.

Countries chosen for comparison are normally relatively similar nations (Rose, 1993, chapter 5). To compare social welfare in Germany and Gabon is of little value, given the vast differences in resources and culture between these two societies. Yet propinquity is no easy guide to comparison. The United States is often compared with European countries, even though it is on a different continent, and Americans rarely compare themselves with Mexico. Even though Germany bordered Communist societies as well as France and the Netherlands, citizens of the Federal Republic have normally compared themselves with

neighbours in Western rather than Eastern Europe. Today, East Europeans are less interested in making comparisons with other former COMECON countries or learning that they are better off than Russia or the Ukraine. They are more interested in comparisons with other European countries, whether the richest, such as Sweden, or those that have started from backward conditions, such as Spain.

Within Europe, there are substantial differences in social and economic achievements along a North-South axis, with prosperous Scandinavian countries at one pole and Mediterranean countries such as Portugal and Greece at the other. When GDP per capita is calculated at current exchange rates, there is a difference of almost five to one between the economic standing of people in Switzerland and Greeks. Since exchange rates are relatively volatile in today's open international economy, an alternative is to value GDP in terms of purchasing power parities. This recognizes that prices for everyday goods are often lower in less prosperous industrial nations. When this is done, the disparity between industrial nations is substantially reduced. The United States rather than Switzerland now appears as the country with the highest GDP per capita. Greece is still the least well off country, but the gap between top and bottom narrows to three to one (OECD, 1993).

On a global basis, North-South differences are so great that the World Bank's report on social conditions (1993, 233 ff) groups countries into four income levels: high, upper middle, lower middle and low income. A glance at Table 2 confirms the obvious: there is a big difference in infant mortality, 63 deaths per thousand, between high and low income categories. Once the time dimension is introduced, the situation can be described differently: both low and high income countries are making progress in reducing infant mortality. A comparison of rates of change shows that low income countries on average are beginning to catch up, for the gap between the two categories was 89 deaths per thousand in 1970; two decades later it was 63. The low income countries are slowly showing signs of catching up, and lower middle income countries are showing even more signs of closing the big gap between themselves and high income countries.

It is especially important to note the great dispersion in infant mortality rates within each

TABLE 2. Global comparisons of infant mortality

	Deaths		Change
	1970	1991	1991-1970
	(per thousand)		
<i>High income countries</i>	20	8	-12
Best: Japan	13	5	-8
Worst: New Zealand	17	9	-8
USA	20	9	-11
Israel	25	9	-16
<i>Upper middle income</i>	72	34	-38
Best: Greece	30	10	-20
Worst: Gabon	138	95	-43
<i>Lower middle income</i>	87	42	-45
Best: Czechoslovakia	22	11	-11
Worst: Congo	126	115	-11
<i>Low income countries</i>	109	71	-38
Best: Sri Lanka	53	18	-35
Worst: Mali	204	161	-43

Source: World Bank, *World Development Report 1993: Investing in Health* (New York: Oxford University Press, 1993), pp. 292-93.

income category. Within high income countries, the least good, including the United States, have almost twice as high an infant mortality rate as the best country, Japan. Among upper middle income countries, the best, Greece, is more than nine times better than the least good, Gabon. Among low income countries, the best, Sri Lanka, ranks high by absolute and relative standards, and the worst, Mali, has 161 infant deaths per thousand births.

Dispersion within each income category shows the limitations of using economic statistics as a proxy for social wellbeing. If income level and infant mortality rates were exactly correlated, then Sri Lanka should have a dollar income 2,200 per cent higher than it actually does, and New Zealanders and Israelis the same income as Americans (cf. World Bank, 1993, pp. 238-39).

Evaluation through cross-national league tables

Explicitly or implicitly, cross-national comparisons imply evaluation: the use of a common social indicator makes it possible to rank countries from the nation doing best (the most students in higher education or the lowest infant mortality) to the country doing least well. Even though countries do not compete against each

other, such data may be presented as a veritable European Cup or World Cup competition for the best social conditions.

Cross-national comparisons introduce a standard of evaluation independent of what a nation has already been doing. East Europeans have thus learned that the progress that they have made in the past 40 years, while a step in the right direction, has usually left them behind the average OECD nation. In Britain, cross-national comparisons often show that even though progress has been made in the post-war era, relative to other countries the income of the average Briton has increased less than elsewhere in Europe.

Countries ranking top of the league have their social policies cited for emulation as 'best practice'. The intent is to encourage other societies to match the achievements of the top-ranking countries if they are behind, or to maintain high standards if they are among the leaders. Insofar as the distance between the highest and lowest ranking countries is great, as in the case of Gross Domestic Product per capita, such a goal is remote or impossible. But insofar as the great majority of European nations tend to bunch together on such measures as infant mortality, catching up is a not unrealistic target.

However, league tables have the disadvantage of producing many more losers than winners. By definition, only one country can rank first. From a global perspective, the idea that countries such as Germany or France are 'also ran' countries because they have not reached Swiss or Swedish levels on a given indicator imputes far too much importance to small differences, for example between the first or fourth-ranking country among 150 nations. In addition, half the countries ranked must be below the median. Insofar as OECD nations tend to be the leading nations in global comparisons of welfare, two of its low-ranking countries, Portugal and Greece, consistently rank among the top fifth of nations in the world on a host of social indicators (cf. Table 2).

A second difficulty is that of establishing the group of countries suitable to form a 'league'. United Nations statistics normally subdivide tables by national income, geography, politics, or some combination of these variables, in order to compare countries that are less different rather than more different. The more numerous

the groupings, the easier it is to make realistic evaluations.

III. Catching up is more than progress

League tables are static not dynamic. But a country's position *vis-à-vis* other countries at one point in time cannot be assumed to persist. Policymakers in low-ranking countries can use this evidence as a spur to adopt policies that enable them to catch up. Even if social conditions within a country change only slowly, relative rankings can change, for worse or for better, if there are differences in the rate at which countries make progress. Cross-national comparisons at a common point in time also err in assuming 'false contemporaneity', that all societies in a league ought to be at the same stage of development.

The idea of catching up involves a subtle shift from a country being below the leaders to being behind others. A loser in a given year's competition can change that position in time. Even though countries currently differ in their welfare, it is possible for them to close the gap in future. If social conditions are less good than others, a country has not 'failed' but 'lagged'. The implication of this is clear: it should try to increase the rate at which it is progressing if it wants to catch up.

Time-space analysis is a flexible tool for evaluating differences between countries, between regions within countries, or between different social groups. The focus is always the same: comparisons showing the time gap between groups. How many years has it taken or would it take to catch up with another country or group of countries that is deemed to have done better on a given social indicator? (On methodology, see Sicherl, 1992.)

Catching up requires unequal rates of progress

In the course of a decade, we would expect most social conditions to improve, and for progress to occur in countries that are examples of best practice as well as those that are laggards in social welfare. This can be frustrating to

policymakers in lagging countries because it forces them to pursue a moving target. Making progress within a country is thus a necessary but not sufficient condition for catching up with other countries.

Catching up involves relative as well as absolute progress; it occurs only if countries are progressing at unequal rates. An inequality in the rate of change can cumulatively reduce inequalities if a country ranking low on a given social indicator improves at a faster rate than high-ranking countries. This is the process by which a country such as Portugal has narrowed the difference between its infant mortality rate and that of Sweden. It is also the process by which Italy in post-war years has attained a higher material standard of living than Britain.

If countries progress at the same rate, relative differences remain the same but absolute differences between countries become greater. For example, maintaining 5 per cent annual improvement in life expectancy for a decade in a country where life expectancy is 60 years will add three years to life. If life expectancy is 80 years, then it will yield four extra years of life, a significantly greater improvement. When starting points are unequal, equal rates of change increase subsequent inequalities. This point has particular relevance for East European countries trying to catch up with West European nations, for social conditions have tended to improve relatively slowly in Eastern Europe.

A comparison of progress in infant mortality in Portugal and Czechoslovakia illustrates problems of catching up with a moving target. Among European Union countries, Portugal has had a high level of infant mortality and the former Czechoslovakia had a very good rate among planned economies. In 1991 the difference between the two countries was only two infant deaths per thousand. Thus, it would appear relatively simple for Czechs and Slovaks to catch up with the lowest ranking country in the European Union. However, Portuguese progress in reducing infant mortality in the past three decades has been unusually high, 6.3 per cent per annum. By contrast, infant mortality in Czechoslovakia improved at a low rate, 2.3 per cent per annum. Thus, by the time that Czechs and Slovaks achieve the 1991 threshold standard of Portugal, the European Union minimum standard will have risen, for Portugal is

making progress too. Since Portugal's annual rate of progress is greater, Czechs and Slovaks can never catch up, and even though both may improve, the relative difference between them will widen (for details, see European Centre, 1993, p. 307 ff).

Selecting a bench mark

Whether or not a lagging nation can catch up depends upon three considerations. First of all there is its starting point: countries can be further or less far behind (cf. Table 2). Secondly, catching up depends on the rate at which progress is made within a country, and the rate of progress in target countries. Thirdly, catching up also varies with the type of target chosen. It is less difficult to catch up if policymakers aim at a fixed target, for example the minimum or average level of infant mortality among OECD nations in 1994, rather than at a moving target. As long as a country is making progress, a fixed target can be achieved sooner or later. Bench marks serve a dual purpose. A social scientist can use a bench mark as a means of evaluating a country's social conditions as they are today. A policymaker can treat a bench mark as a target, indicating what a country's conditions ought to be like tomorrow.

Fixed targets

(1) *A minimum threshold.* A threshold is a goal and at the same time marks entry into a new level of achievement. If, within the calculable future, a country cannot attain a minimum level, then it should be concerned with catching up with another group of nations, where standards are not so high. The point is particularly relevant for republics of the former Soviet Union, since these republics, stretching from Europe to Central Asia, have always displayed much disparity in their rates of change. While some republics may be within hailing distance of Portugal or Greece, others may more appropriately take targets derived from comparisons with middle income countries in Latin America or Asia (cf. World Bank, 1992, pp. 4-5; European Centre, p. 313 ff).

Insofar as the definition of advanced industrial nations is fixed, then it is inappropriate to make the current standard of achievement

among OECD nations the minimum threshold. To do so would imply that countries such as Germany or the United States were not advanced until a decade ago, since Germany did not reach today's minimum standard of infant mortality until 1982, and the United States did not do so until 1983. Arguably, the threshold could be the minimum achievement in 1960, the year in which OECD was founded. In 1960 infant mortality in Portugal was at the level of the mean lower middle income country today. Any country outside OECD that has not reached its 1960 minimum today is very far behind indeed. A meaningful fixed target for middle income countries is the minimum level of achievement of advanced industrial nations or member states of the European Union today.

(2) *Today's OECD median.* Among OECD countries, the minimum threshold is not a meaningful fixed target, but the median is, since half the member countries today will be below that level. The median offers a standard that focuses on what is typical rather than on the extremes of Portugal or Sweden, the leading and lagging countries in infant mortality, and it avoids the risk of the mean being skewed through a few outlier cases. The median countries in infant mortality in 1991 were Austria and Britain.

Because half the OECD countries are below the median, achieving a fixed median target is a meaningful test of progress for countries already classified as advanced, as well as those that have yet to pass the threshold. Post-Communist societies are not the only countries striving to catch up with the OECD median. Depending on the indicator, Denmark, Belgium and the United States can be below the median. Making today's median a fixed target avoids the trap of condemning a nation to be below-average forever, inasmuch as half of any league must be below the median. When a country catches up with a fixed median, it can be considered as representative of advanced industrial nations at a given point in the present, or at least in the not too distant past.

(3) *Satiation goals.* Some targets are not only fixed but also involve satiation; once they are achieved no further progress is possible. Literacy is a good example, for once the traditional goal of 100 per cent literacy in the population

is achieved, no further progress is possible (UNESCO, 1988). Thus, a middle income country seeking to catch up can do so more easily if it seeks to achieve 100 per cent literacy than if it seeks to achieve the minimum standard of infant mortality of European Union countries. A surprising number of social policy goals are completely attainable, such as the provision of safe drinking water for the whole of the population. If a goal is satiable, a country that registers even a slow rate of progress will sooner or later close the gap between it and the leading countries.

Many welfare goals are satiable to a degree. We think of longer life expectancy as an unlimited goal, but as it rises above 80 and medical science makes it possible to keep people physically alive who have lost all their mental faculties, we may identify a point at which 'too much' longevity may be considered undesirable, for example when people lose their physical and/or mental capabilities. Similarly, more education is normally considered desirable in itself, but even though a rise in the average school-leaving age from 15 to 18 may be considered progress, it does not follow that it would also be progress if every youth remained a full-time pupil to the age of 21 or 24. The creation of more material wealth, as measured by GDP per capita, is normally treated as an insatiable pursuit. Even if this is the case, the marginal utility of each additional unit of money income is not necessarily of equal value for individuals, or for a nation collectively.

Moving and exclusive targets

(4) *A moving target.* This is much more difficult to achieve than a fixed target. It is easiest to achieve in within-nation comparisons. Economic performance is often evaluated in terms of a nation improving its record by comparison with the previous year. Cumulatively, the level of achievement ratchets up, but each annual increment can be very small. This is true whether improvement is measured as an increase in the gross domestic product or as a reduction in the annual rate of inflation, both reported in units of tenths of one per cent.

If cross-national comparison involves a moving target, it is far more realistic to target the minimum threshold rather than the median

or the leader of a league. Insofar as there is a tendency for leading countries to progress at a slower rate and for laggard countries to progress faster because they are starting from a lower base, then catching up with a moving target is feasible. In infant mortality, we can imagine countries below the median or minimum threshold rapidly improving their rate by borrowing policies and medical technology that have already been successful in leading countries. To make further progress, countries that have reduced infant mortality to five or less deaths per thousand must eliminate the most recalcitrant causes of infant mortality, including accidents and congenital defects, rather than investing more effort in what has worked before.

(5) *Exclusive targets.* It is impossible for all countries to achieve an exclusive 'positional' target, such as ranking first (cf. Hirsch, 1977). Yet league tables invite the interpretation that only one country should be prized and all others regarded as 'failures'. Such terms are appropriate in athletic competitions but not in the evaluation of progress. Social and economic development is not like a zero-sum tennis match, in which one side wins and the other loses. It is like a game of golf, in which each participant can post a better score than heretofore.

Egalitarian criteria are exclusive when they are redistributive. If raising household income is the goal, then economic growth can make progress and bring benefits to all groups within society by raising the income of all types of households, and leaving existing income distribution unaffected. If, however, income equalization is the goal, then the benefits of economic growth must be redistributed, or higher income groups may even see their income fall, while lower income groups are given an increased income.

Social welfare is not a collective good; therefore, its benefits can be non-exclusive. The improvement of one person or family need not be at the expense of other families, and, in the case of better education or health, may incidentally make society collectively better. From a cross-national perspective, social welfare is not redistributive. Greater life expectancy in the Mediterranean has not made Scandinavians live less long, and the continuance of a gap in life expectancy between Northern and Southern

Europe does not mean that Southern Europeans are dying younger. Such figures are evidence of increased life expectancy throughout Europe. Making progress is the critical goal; catching up with other countries is a legitimate pursuit, but it is not a necessary condition of promoting welfare.

Policymakers can use the logic of time-space analysis to make more realistic evaluations about existing policies. If within-nation regional differences appear large or widening, this can be a stimulus to fine-tune national policies. If a country is a leader among its reference group of nations, a policy can be deemed satisfactory. When a country finds that it is not progressing as well as other countries or that it lags far behind a desired target, the fact that other countries have already reached a given standard demonstrates that in principle it could be attained someday. Insofar as high achieving countries can be compared with those who wish to emulate their achievements, useful lessons may be drawn about specific policies too (cf. Rose, 1993).

Given awareness of a gap between present national achievements and a desired goal, the question thus arises: How long would it take to bridge the gap at our present rate of progress? If the resulting projection is considered unacceptably long, then accelerating the rate of change becomes a priority. Historic achievements can be used as a credibility test on claims. If the government of the day asserts it is catching up but that this would require trebling or quadrupling the current rate of progress, then the announcement can be treated as political rhetoric. Comparisons across time and space cannot promise to close gaps between the most and least developed countries in the foreseeable future, but it can provide a means for social scientists and policymakers to understand how large or small the gap is, to select realistic targets from a repertoire of possible bench marks, and measure how fast or slowly progress is made.

IV. Implications

The great variability around the world in infant mortality, even among countries in similar categories of gross domestic product per capita, is a reminder that whether a country needs

to catch up or, alternatively, is already ahead depends on the choice of indicator as well as the choice of country. On income measures, especially after adjustment for purchasing power, the United States usually leads. But on infant mortality, it is a laggard.

A systematic review of Eastern and Western European countries in terms of three different indicators – infant mortality, education, and gender equality in employment – demonstrates that we cannot generalize about a country's social conditions. *Where a country ranks depends on what is being measured* (see European Centre, 1993). When infant mortality is examined, historically planned economies of Eastern Europe do less well than advanced industrial societies. But when literacy is the focus, East and West European countries are equal, for this is a satiation target. Comparisons of secondary education show substantial overlap; the great majority of young people in all parts of Europe now receive a substantial amount of secondary education.

Post-Communist societies lead advanced industrial societies when gender equality in employment is the object of analysis (Table 3). The ratio of women to men in the labour force ranged from 108 women in work for every 100 men in Russia to 47 in 100 in Ireland. Of the ten countries ranking highest in gender equality, six are historically planned economies; the average for the eight historically planned economies is a gender ratio of 90 per cent. The average for market economies is 71 per cent. In 16 market economies, the proportion of women to men in the labour force today is lower than it was in the German Democratic Republic in 1960.

There are differences between market economies too in the mobilization of the women in the labour force. All four Scandinavian societies have attained a level of gender equality similar to or greater than the minimum threshold of historically planned economies. But as of 1990, West Germany had a level of gender equality 31 per cent below East Germany. There are also big differences in rates of change. The mobilization of women in the labour force is relatively recent in Scandinavia; the rate in Sweden was below that of Austria in 1960; today there is a 27 percentage point difference. Rates of change have also differed among low-ranking Western countries; the gender ratio in Spain has doubled in 30 years, while it has increased by only one third in Ireland.

TABLE 3. Gender ratios in employment in OECD countries

	1960	1970	1980	1990	Change 1990–60 (Women as % of men in labour force)
Russia	100	113	108	108	8
German Dem. Rep.	79	75	89	100	21
Sweden	51	67	85	96	45
Czechoslovakia	69	79	89	92	23
Finland	72	75	85	90	18
Denmark	44	63	80	88	44
Romania	81	89	82	85	4
Poland	77	89	85	85	8
Norway	na	59	71	83	24
Bulgaria	74	85	89	82	8
USA	47	56	70	80	33
Canada	37	50	66	80	43
New Zealand	33	41	51	76	43
Hungary	55	69	72	75	20
Britain	47	54	64	75	28
France	49	54	67	75	26
Portugal	na	55	62	72	17
Australia	35	50	59	72	37
Belgium	43	47	60	72	29
Austria	57	59	61	69	12
Germany	52	52	60	69	17
Netherlands	27	31	45	67	40
Switzerland	51	52	57	63	12
Italy	42	39	48	57	15
Greece	na	37	42	57	20
Luxembourg	36	35	45	56	20
Spain	26	29	39	53	27
Ireland	35	36	41	47	12

Sources: OECD, *Historical Statistics, 1960–81*, p. 35; 1960–90, p. 39. World Bank, *World Tables* (2nd edn, 1980), p. 464; 1970–90, World Bank, *Historically Planned Economies* (1992). USSR, 1940 and 1960, B.P. Pockney, *Soviet Statistics since 1950*, p. 48.

The indicators that we use are not timeless measures 'given' by nature; they are social constructs that represent what policymakers consider important. The introduction of health statistics occurred in conjunction with the demand for public health measures. Concern with the ratio of the working to the elderly in the population has followed from the adoption of social security laws giving employees a lifetime income after retirement. Gender equality is distinctive in that, even though statistics have been separately compiled about male and female labour force participation for more than half a century, only in recent years has equality of access to paid employment by women and men become a policy concern.

The development of new policy indicators is the logical culmination of progress. This is to be expected with satiation goals, but once success has been fully achieved there is no further possibility of change. But new targets can be developed. The expansion of secondary education in the wake of literacy can stimulate thought about what ought to be the appropriate measure for educational progress in future: raising the quantity of education (tertiary education for all?), changing goals (for example, the balance between socialization in schools and the attainment of examined skills in reading, writing and mathematics), or switching from schooling as an end of itself, thus justifying more of the same, to training in vocational skills or lifelong relearning for work and leisure?

There is no *a priori* reason to expect that social indicators devised at the turn of the twentieth century will be suited to measure progress in the twenty-first century. For example, when eligibility for a pension was initially set at age 70, by this age the majority of contributing

workers were already dead. Today, people receiving a pension in their early 60s are usually physically well and active. It is arguable that we need new measures of 'retirement' and 'productive activity'.

Even when indicators have continuing validity, the tempo of progress is disputable. Policymakers can agree about the direction of change, but disagree about whether the present rate is good enough. When disputes arise in a party political context, the government of the day has a vested political interest in defending the current rate as the best that can be achieved in the circumstances, whilst the opposition tends to use comparisons with other countries as a stick with which to prod the government to do more. Time-space analysis of social change cannot tell a national government what it must do but it can show how well the government is doing in comparison with its own national past, and how well or badly it is doing by comparison with other nations.

References

- EUROPEAN CENTRE FOR SOCIAL WELFARE POLICY AND RESEARCH, 1993. *Welfare in a Civil Society*. Vienna: European Centre.
- FLORA, P., 1983. *State, Economy and Society in Western Europe 1813–1975*. Frankfurt am Main: Campus, 2 vols.
- HIRSCH, F., 1977. *Social Limits to Growth*. London: Routledge & Kegan Paul.
- MARER, P.; ARVAY, J.; O'CONNOR, J.; SCHRENK, M.; SWANSON, D., 1992. *Historically Planned Economies: a Guide to the Data*. Washington DC: World Bank.
- MITCHELL, B. R., 1975. *European Historical Statistics, 1750–1970*. London: Macmillan.
- OECD, 1993. *OECD In Figures: Statistics on the Member Countries*. Paris: OECD, 1993 edition.
- ROSE, R., 1991. 'Comparing Forms of Comparative Analysis', *Political Studies* 39(3), pp. 446–62.
- ROSE, R., 1993. *Lesson-Drawing in Public Policy: A Guide to Learning Across Time and Space*. Chatham, NJ: Chatham House.
- ROSE, R.; HAERPFER, C., 1994. *New Democracies Barometer III: the Results*. Glasgow: U. of Strathclyde Studies in Public Policy, No. 230.
- SICHERL, P., 1992. 'Integrating Comparisons across Time and Space: Methodology and Applications to Disparities within Yugoslavia'. *Journal of Public Policy*, 12 (4), pp. 377–404.
- SIMON, H. A., 1969. *The Sciences of the Artificial*. Cambridge, MA: MIT Press.
- UNESCO, 1988. *Compendium of Statistics on Illiteracy*. Paris: UNESCO.
- UNICEF ICDC (International Child Development Centre), 1993. *Public Policy and Social Conditions: Central and Eastern Europe in Transition*. Florence, Italy: UNICEF ICDC Regional Monitoring Report No. 1.
- WORLD BANK, 1992. *Statistical Handbook: States of the Former USSR*. Washington DC: World Bank Studies of Economies in Transformation, No. 3.
- WORLD BANK, 1993. *World Development Report 1993: Investing in Health*. New York: Oxford University Press.