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Inequality, Poverty and Social Policy: Recent Trends in Chile

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SUMMARY

1. This report aims to outline the main trends in income distribution and poverty in Chile, as well as the role of social policy in these areas. The report includes five sections. First, it discusses recent trends in income inequality and poverty, including a brief overview of the data available in the country. Second, it describes the country's social protection programs, including with respect to coverage, financing and distributional impact. The third section examines how social policy has affected poverty reduction in recent decades, which is followed by an analysis of the relative stability of income inequality and its relation to public policy instruments. Section five presents future trends in social policy and their potential impact on inequality and poverty.

RESUME

2. Le présent rapport passe en revue les principales tendances d'évolution de la distribution des revenus et de la pauvreté au Chili, ainsi que le rôle de la politique sociale dans ces domaines. Ce rapport comprend cinq parties. La première passe en revue les tendances récentes en matière d'inégalité des revenus et de pauvreté et donne une vue d'ensemble des données disponibles correspondantes. La deuxième partie décrit les programmes de protection sociale du pays, notamment leur étendue, leur financement et leur impact sur la distribution. La troisième partie vise à déterminer les effets exercés par la politique sociale sur la réduction de la pauvreté durant les récentes décennies. La quatrième partie analyse la stabilité relative des inégalités de revenus et le lien avec les instruments de la politique publique. La cinquième partie présente les tendances futures d'évolution de la politique sociale et son impact potentiel sur les inégalités et la pauvreté.

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I. Trends in inequality and poverty

The data

3. The income data used in this document comes from the National Socioeconomic Characterization Survey (Casen)¹. This is a multi-topic household survey with a large sample size (75,000 households in the year 2006), which has been conducted every two or three years since 1987. The Casen survey is the traditional source for statistics on income distribution, poverty and the impact of social spending in Chile. The survey is performed by the Micro Data Center of the Universidad de Chile under a commission by the Ministry of Planning (Mideplan).

4. The usual statistics in Chile on inequality and poverty are based on an income concept that differs in three ways from the income concept used by the OECD: (i) data are expressed in per capita terms instead of equivalence units; (ii) they include imputed rents for own-housing; and (iii) they exclude contributions made to private social security funds. The data concern net or disposable incomes.

5. The inequality and poverty statistics presented in this document follow the OECD guidelines, and so are not strictly comparable with the traditional statistics used in Chile. Nevertheless, the trends in the indicators are quite similar. The poverty and inequality indicators are calculated on an individual level, so a household is represented by each individual member. In addition, in-house servants are considered independent households.

6. Mideplan corrects for under-reporting the income data of the Casen survey. The methodology used consists of multiplying each of the income components by a constant factor that adjusts the data to the level of income reported in the national accounts. The adjustment factor is constant for all recipients of the respective income component, on the assumption that the under-reporting is constant throughout the distribution of the variable. The only exception is property income, in which the entire difference between reported and actual income is imputed to households from the richest quintile. The statistics presented in this report are based on the data as adjusted for the national accounts (the non-adjusted data is not available). This correction does not have a significant impact on the inequality statistics, since it does not modify the distribution of each income component, but it is likely to decrease the poverty statistics if reported income is lower than national account estimates.

The period under analysis

7. Poverty and income inequality trends are analyzed for the 1990 to 2006 period. This focus is basically due to the availability of data, since the Casen survey was first implemented in 1987. There is no previous data on income that allows measuring poverty and inequality on a national level. The Employment Survey of the Universidad de Chile provides information only for the city of Santiago as far back as 1958, and includes a small module on household income. The data from that survey are used only for very specific applications in this report.

8. The years 1990 to 2006 also correspond to the period following the military dictatorship. During that period there have been four successive governments led by a centre-left coalition, which have implemented a “growth with equity” strategy based on a market resource allocation system complemented by an active social policy. This explains why the period of analysis begins in 1990 and not 1987, when the first Casen survey data was available.

¹ Encuesta de Caracterización Socioeconómica Nacional (Casen).

Trends in income inequality: 1990-2006

9. Table 1 presents trends in income inequality over the 1990 to 2006 period. Three indicators that measure the distance between various points of the income distribution are used: the ratio of quintiles 5 to 1 (Q5/Q1), the ratio of deciles 10 to 1 (D10/D1), and the ratio of percentiles 90 to 10 (P90/P10). The table also shows the Gini coefficient, which synthesizes information about all income through a function that evaluates the gap between all the combinations of individual income.

10. Chile has a high level of income inequality compared to other countries. There is a difference of around 25 points in the Gini coefficient with respect to the average for developed countries, according to the data reported in the De Ferranti et al (2003) study. Income inequality in Chile is high even by the standards of Latin America, the region with the highest levels of inequality in the world. The position in the income inequality ranking depends on the indicator used. Chile had the third highest Gini coefficient at the beginning of this decade, just behind Brazil and Colombia. However, using the ratio of percentiles 90 to 10, Chile lies in an intermediate position of inequality in the region, behind countries such as Argentina, Mexico and Peru.

11. Notwithstanding the above, all indicators agree that income inequality has fallen in Chile since 2000, after remaining relatively level between 1990 and 2000. It is important to note that the decline in inequality had already appeared in 2003, and thus may constitute a trend rather than an effect specific to a particular year.

12. The change in income distribution can also be examined through the income growth rate at the level of the various household deciles (Table 2). In the 1990-2000 period, income growth was relatively even among deciles, so the relative distance between incomes tended to be maintained and the inequality indicators remained stable. Stable inequality occurs because the inequality measures are invariant to scale, so they do not change if all income increases by the same proportion.² Between 2000 and 2006, the growth in income clearly tended to decrease from the bottom to the top of the distribution. The lower deciles had an accumulated income increase of over 20%, the medium-high deciles increased around 15%, while the richest decile had negative growth. The latter is an out-of-trend figure. However, the conclusion that income inequality declined does not depend on this result.

13. In the 2000 to 2006 period, average income growth was lower than the growth of deciles 1 to 9 (or 90% of cases), which might seem inconsistent since the average must be representative of the parts. However, the average growth corresponds to a *weighted* sum of the income growth of each decile, in which the weighting is each decile's share of total income. The large weighting given to decile 10 out of total income (42% in the year 2006) explains this apparent inconsistency.³ It follows that evaluating the performance of the economy based on average income growth may not be informative about the evolution of the income of majority population groups, as is the case in the 2000-2006 period.

² That is, if $I(x)$ is the function that relates vector x of income with inequality indicator I ; then $I(x) = I(ax)$, where a is a positive constant (Cowell, 2000).

³ If ρ is the average income growth rate and ρ_i is the growth rate of the income of decile i , then $\rho = \sum \lambda_i \rho_i$; where λ_i is the income share of decile i out of total income.

Table 1. Inequality indicators: household per equivalent adult, 1990-2006

Year	Q5/Q1	D10/D1 ¹	P90/P10 ¹	Gini
1990	16.92	36.78	10.74	0.56
1996	16.82	35.34	10.71	0.56
2000	18.35	42.59	10.50	0.56
2006	14.17	29.48	9.39	0.53

¹P90/P10 is the ratio of the upper bound value of the ninth decile to that of the first decile. The "D10/D1" is also often referred to as the "S90/S10", and denotes the share of all income received by the top decile divided by the share of the first or the ratio of the average income of the top decile to that of the first.

Source: Calculations based on Casen surveys, respective years.

Table 2. Per capita income growth rate by household decile (%)

Decile	1990-2000	2000-2006	1990-2006
1	29.7	40.9	82.7
2	44.9	23.3	78.7
3	48.7	20.6	79.3
4	48.7	19.1	77.2
5	49.0	18.0	75.8
6	48.3	16.9	73.4
7	46.6	15.1	68.7
8	46.9	13.5	66.7
9	47.5	10.1	62.4
10	61.3	-9.2	46.5
Average	53.4	3.9	59.5

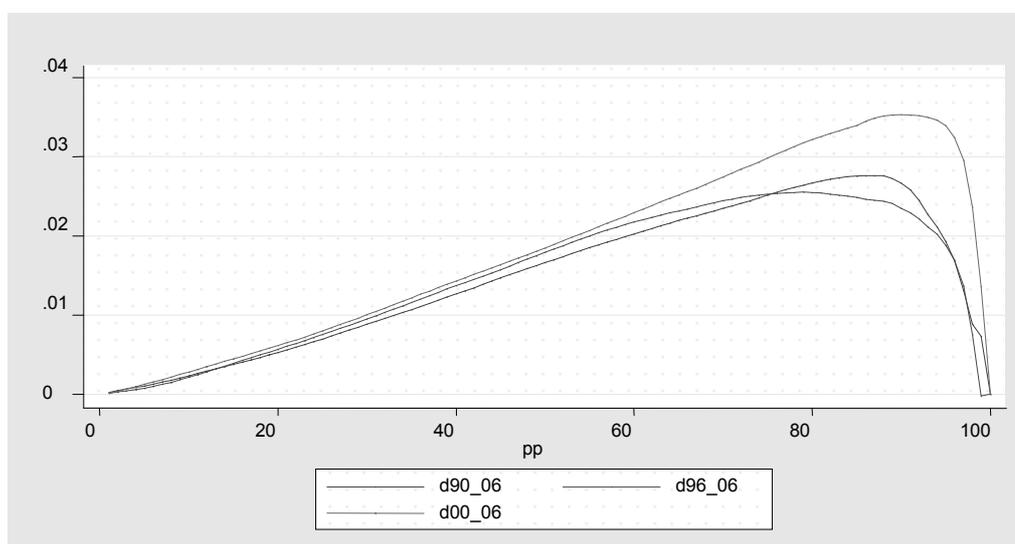
Source: Calculations based on Casen surveys, respective years.

14. Finally, trends in income distribution can be analyzed through the Lorenz curve, which relates the accumulated distribution of households to the accumulated share of income. A comparison of the Lorenz curves in different time periods provides information on trends in inequality. A distribution is less unequal than another if the Lorenz curve of the first is above the Lorenz curve of the second (or closer to the 45 degree or equal distribution line).

15. Figure 1 presents the *distance* between the Lorenz curve of the year 2006 with that of previous years. In each case, the distance is positive for all the possible values of the Lorenz curve. There is thus a lower level of income inequality in 2006 than in previous years, *across the range of the income distribution*. This result, which is referred to as “Lorenz dominance”, is not very common. It is more likely that the Lorenz curves of different periods cross over each other, producing ambiguous inequality rankings over time.

16. The Lorenz curve, as with the other inequality indicators provides information about income inequality, but not about its average level. For instance, the occurrence of Lorenz dominance at a lower average income level would mean that the country is less unequal, but also poorer. This result would be ambiguous in terms of social welfare. On the other hand, when Lorenz dominance is accompanied by higher average income levels, it can be concluded that social welfare has increased: the country is consequently less unequal and richer. This is the case of Chile in the year 2006, with dominance in the Lorenz curve as well as in the average income level with respect to the previous years in the period.⁴

Figure 1. Distance between Lorenz curves (2006 vs 2000, 1996, 1990).



Source: Calculations based on Casen surveys, respective years.

Poverty Trends

17. There is no standardized procedure for measuring poverty, in contrast to the situation with the national accounts, public finances and other economic indicators. Poverty measurement allows for variations that include absolute criteria, such as the poverty line of US\$ 1 or US\$ 2 per capita per day used by the World Bank, as well as relative criteria, such as the 60% of median income line used by various European countries. The procedure chosen depends on the interpretation of the “minimum needs”, which can be considered absolute or relative with respect to the standard of living in the country.

18. In Chile, as in most Latin American countries, the poverty line is measured on the basis of a basic food basket. This is the cost-efficient food basket that satisfies the nutritional requirements of household members, and which defines the indigence or extreme poverty line. The poverty line is obtained after

⁴ This result is established in Atkinson (1971) and is based on a social welfare function that is an increasing and concave function of individual incomes.

adding up the cost of other commodities: clothing, transport, housing, etc. The calculation is based on the actual consumption spending of a reference group of households.

19. The food basket method considers absolute elements (nutritional requirements), and it also includes a relative component, since it is based on the actual consumption of the reference group of households, which changes over time as income levels and consumption patterns evolve. In contrast, the European method is a purely distributional measure, and applying it in developing countries could produce contradictory results, such as that a poor country may be considered to not have any poverty (if everyone lies above the 60% of the median income line).

20. Table 3 presents a range of indicators to characterize the evolution of poverty over time. These are: (i) the percentage of poor over an absolute poverty line, calculated as 50% of the median income of 1996, an adjusted by inflation over time; (ii) the percentage of poor according to a relative line, equal to 50% of the median income of the respective year; (iii) the percentage of GDP that needs to be spent on poor households for them to reach the absolute poverty line.

Table 3. Poverty Indicators, 1990-2006

Year	Percentage of poverty		Poverty gap as a % of GDP, absolute line
	Absolute line	Relative line	
1990	30.3	20.5	4.6
1996	20.7	20.7	2.1
2000	18.9	20.9	1.9
2006	10.6	16.4	0.9

Source: Calculations based on Casen surveys, respective years

21. The first two indicators are measures of the incidence of poverty; in other words, they report on how many people are poor. The third indicator is a measure of the incidence as well as the depth of poverty. It can be interpreted as the spending needed to “eliminate” poverty through a policy of optimal transfers, where each poor household receives exactly the amount of income needed to reach the poverty line.⁵ Actually, this is a lower bound amount, since an assessment of the actual cost of such a policy must consider that there are significant costs of targeting and incentives. This is because there are strong incentives to under-report income if that information will be used to determine the amount of a transfer that increases as income declines. Furthermore, the existence of such a transfer reduces autonomous income if there is some kind of disincentive to work that would result in a higher transfer than otherwise.

22. The reduction of poverty in the 1990 to 2006 period is impressive when poverty is measured in terms of an absolute criterion. The percentage of poor in the year 2006 was only one-third of the 1990

⁵ The cost of poverty reduction is equal to $n(z-u)/(Ny)$; where n is the number of poor, z is the poverty line, u is the average income of the poor, $(z-u)$ is the poverty gap, N is the population of the country, y is the per capita GDP (so Ny is the GDP). The indicator can also be expressed as $H(z-u)/y$; where H is the percentage of poverty (n/N). A related indicator is the poverty gap, which equals $H(1-u/z)$.

level, which represents a dramatic decline in poverty in a relatively short period of time. In 1990, the cost of the optimal transfer to “eliminate” poverty was 4.6% of GDP, while in 2006 the corresponding amount was only 0.9% of GDP. This result reflects a combination of a drop in the percentage of poverty and increases in the average income of the poor and in per capita GDP.

23. On the other hand, poverty as measured by a relative poverty line follows the trend in the inequality indicators: stable during the 1990s and decreasing from 2000 to 2006. This result is not result, as under the relative poverty line the incidence of poverty is akin to an inequality indicator.

24. Poverty measurement in Chile is based on an absolute line, which shows a declining trend in the indicator similar to the one described above. There is debate in the country about the level of the poverty line, since the one used is based on the 1987 consumption structure (adjusted for inflation). The choice of the poverty line level is not a minor issue, since the magnitude of poverty is a key factor for allocating social spending, as well as for characterizing the development level achieved by the country.

25. The impact of alternative poverty lines on the incidence of poverty can be estimated through micro-simulations in the Casen databases. Table 4 presents the results of those estimates for poverty lines that range between US\$ 124 and US\$ 284.⁶ The reference line is US\$ 164, which is around the value actually used in the country.⁷

Table 4. Percentage of poverty, for alternative poverty lines (household per equivalent adult income)

Year	Poverty line (US\$)				
	124	164	204	244	284
1990	17.1	27.4	36.6	45.0	52.6
2006	6.4	11.3	17.6	23.6	30.6

Source: Calculations based on Casen surveys, respective years

26. The estimates show that the incidence of poverty is quite sensitive to the value of the poverty lines. An increase of 25% in the reference value of the poverty line causes an increase of about 50% in the incidence of poverty for 2006, while a decrease of 25% in the poverty line almost halves the percentage of poor. This occurs because there are many households whose income hovers around the poverty line, so changes in the line have a high impact on the percentage of poverty. It follows that great care is needed when interpreting the country’s poverty statistics, given that there are reasonable doubts about the most reasonable value for the poverty line.

27. The second result of interest is the relationship between the value of the poverty line and the poverty trend over time. The trend is clearly decreasing, independently of the line used. However, the slope is not constant, but rather decreases when the value of the line increases. Once again, this result reflects the percentage of households whose income hovers around the line. The higher poverty lines are associated with a lower density in the income distribution function. Fewer households thus leave poverty when per capita income increases and the income distribution function changes over time.

⁶ All monetary figures in the text are expressed in US dollars, using an exchange rate of Ch\$ 500 per US\$ 1 (average exchange rate between 2007 and the middle of 2008).

⁷ The poverty line used in Chile is calculated in per capita terms. Its “conversion” in terms of equivalent-adult is done by equalling the percentiles of the respective income distributions (per capita and per equivalent-adult).

II. Social protection programs in Chile

28. Social policy programs in the country can be grouped into three categories: social protection, education and health. Social spending increased sharply since the early 1990s, rising by a factor of 2.5 times during the 1990 to 2006 period in real terms (Table 5). The spending increase has been particularly significant in the areas of education and health, with respective increases of 3.7 and 4.0 times in the cited period. The increase in social spending has two main determinants. First, the increase reflects the high priority that the governments of the period have placed on social policy to achieve greater equality in the context of a market-based resource allocation system. Second, it has taken place in an environment of economic growth, which has made it possible to increase spending while maintaining balanced public finances. As a percentage of GDP, social spending rose from 12.3% in 1990 to 14.4% in 2000.⁸

Table 5. Public social spending in Chile 1990-2006

	1990	1996	2000	2006 (*)
As % of GDP				
Education	2.3	2.4	3.7	3.1
Health care	1.9	2.4	2.8	2.8
Social protection	8.1	7.3	7.9	5.9
Total	12.3	12.1	14.4	11.8
1990: 100				
Education	100.0	195.1	278.9	367.3
Health care	100.0	203.1	266.0	401.1
Social protection	100.0	131.7	155.6	184.2
Total	100.0	153.3	193.5	248.2

Note: The 2006 nominal GDP was significantly affected by an increase in export values, which explains the drop in social spending as a percentage of GDP.

29. This section includes a presentation of the social protection programs, the main component of which is monetary transfers that have direct effects on poverty and income inequality indicators. In 2006, the social protection programs represented nearly half of social spending, with the other half corresponding to education and health programs. The contribution of the latter to the reduction of poverty and inequality is analyzed later.

30. Table 6 presents the composition of social spending in the social protection programs. Around three-quarters corresponds to monetary transfers to senior citizens, including both contributory pensions and targeted non-contributory transfers. The other social protection programs involve monetary transfers to

⁸ The drop in 2006 is explained by a sharp nominal increase in GDP produced by a boom in the value of exports. This figure is thus not comparable with previous years.

families with children, which are targeted at the lower-income population, subsidies to acquire housing, and a range of programs and benefits targeted at vulnerable population groups.

31. The presentation that follows uses a somewhat different classification of the social protection programs than above, as it distinguishes monetary transfers targeted at lower-income groups from transfers in the social security system that are allocated on a contributory basis. This classification makes more sense for analyzing poverty and income inequality.⁹

Table 6: Composition of social protection programs (%)

	1990	1996	2000	2006
Old age	76.1	76.3	76.9	74.4
Family	7.5	7.5	8.2	7.8
Housing	8.1	12.7	10.2	11.5
Other	8.3	3.5	4.7	6.2
Total	100.0	100.0	100.0	100.0

Source: Direccion de Presupuestos: "Estadisticas de Finanzas Publicas", various years

Non-contributory transfers (social assistance transfers)

32. These are monetary transfers targeted at lower-income households. The main programs are non-contributory pensions (PASIS) paid to old age or disabled poor people who are not covered by social security, and the Family Subsidy (SUF), which is a per-child benefit for poor households without social security. Other subsidies include the family allowance, paid per child to low-income salaried workers; an income transfer paid to households that participate in the Chile Solidario program; and the drinking water consumption subsidy, which pays a percentage of the drinking water bill of low-income families.

33. Non-contributory transfers to the elderly, disabled people and children represent a counterpart to the respective social security transfers. Social security coverage is limited to those who have been part of the formal labour market, as in the case of salaried workers and their family dependents. While it is true that social security coverage in Chile is relatively high by Latin American standards, it needs to be complemented by non-contributory transfer programs to cover the whole population adequately (mainly low-income independent workers and their families).

34. Most social assistance transfers are targeted through a means proxy test called the Ficha de Proteccion Social (FPS). It is the successor to the CAS file introduced in the early 1980s, which involved a socioeconomic evaluation of the household based on the characteristics of the dwelling, the possession of durable goods, the schooling level of the head of household and the employment status of the head of household and his/her partner. The current FPS maintains certain characteristics of the CAS, but bases the evaluation of the household on a range of variables related to the capacity for income generation. The FPS excludes most dwelling and durable goods variables so as to reduce the negative effect of the targeting instrument on economic incentives (poverty trap).

⁹ There is no disaggregation of social spending information available in order to rebuild Table 6 based on classification. Estimates based on the data of the household surveys are provided in the following text.

35. Most social assistance transfers consist of small amounts paid for each dependent family member, either through the family allowance or the Family Subsidy, i.e., around US\$ 11 a month per beneficiary. The non-contributory pension is the highest transfer, in the range of US\$ 96 to US\$ 112 per month.¹⁰

36. According to the 2006 Casen survey, 39% of households received some kind of monetary subsidy, even though the subsidies represented only 4.5% of the total monetary income of transfer recipient households. This percentage drops to 1.2% when all households are considered, whether they receive subsidies or not.

37. Social assistance transfers in Chile are relatively well targeted: 75% of spending on these programs goes to households from the two lowest income quintiles (Table 7). The percentage drops to about 60% in the case of the drinking water subsidy, as the amount of the transfer increases with the level of consumption up to an upper limit of 15 cubic meters a month. Similarly, the family allowance is less targeted on the lowest income quintiles since it benefits only workers in the formal sector of the economy.

38. The concentration coefficient measures the redistributive impact of taxes and social spending programs, with a value ranging between -1 and +1. Any transfer program with a concentration coefficient lower than the Gini income coefficient reduces income inequality. A negative value indicates that the transfer is progressive, since the amount of the benefit decreases as household income rises. A positive concentration coefficient below the Gini indicates that the program reduces income inequality even when the amount of the benefit increases as the income level rises (but at a lower rate than income).

¹⁰ The values of the benefits in 2008 were: SUF (US\$ 11); Non-contributory Pension (US\$ 96 to US\$ 112, according to age); Drinking water subsidy (100% to 15 cubic meters); Family Allowance (US\$ 11 to US\$ 0, according to salary level); Social Protection Bonus (US\$ 25 to US\$ 11, according to participation status in Chile Solidario).

Table 7: Distribution of spending in social assistance transfers across household income quintiles

	Q 1	Q 2	Q 3	Q 4	Q 5	Total
Non-contributory pensions	55.8	23.0	12.0	6.5	2.6	100.0
Subsidio Unico Familiar	62.7	23.3	9.0	4.1	1.0	100.0
Drinking water subsidy	32.7	28.5	20.5	13.9	4.3	100.0
Bono Chile Solidario	58.4	23.0	12.8	5.1	0.7	100.0
Family Allowance	26.2	32.4	22.0	13.6	5.5	100.0
Total	47.9	25.6	14.8	8.6	3.2	100.0

Source: Source. Mideplan, 2008

39. The Lindert, Skoufias and Shapiro (2006) study analyzes the redistributive impact of monetary transfers in eight Latin American countries. All social assistance programs in Chile are progressive, with concentration coefficient values below zero. The drinking water and family allowance subsidies have a coefficient of -0.2; the PASIS disability and old age transfers have a coefficient of around -0.5; and the SUF and the Chile Solidario transfers have a coefficient of around -0.6. The authors present a ranking of 40 social assistance transfers for the eight countries under study, according to the Distributional Characteristic Index which measures the redistributive impact of a program while controlling for the program spending level. The SUF and the Chile Solidario transfers are at the top of the ranking (places 3 and 5, respectively); the PASIS disability and old age transfers lie in the middle (18 and 23); while the drinking water and family allowance subsidies lie in positions 26 and 27, respectively.

40. In developed countries, monetary transfers have been associated with negative incentives. Eligibility for benefits requires that the person or family have a low income or some similar vulnerability, as the mere existence of the benefit can foster circumstances that facilitate claiming or maintaining the benefit. Another negative incentive is the income effect associated with the monetary transfer, since the increase in household income may reduce the supply of labour of household members. Two of the main cases that have been widely discussed in the literature are the AFDC in the United States and unemployment subsidies in some European countries.

41. There are no empirical studies of this subject available for Chile. However, it is unlikely that the existing monetary transfers have had negative effects on the behaviour of individuals or families, for two main reasons: (i) the amount of the benefits involved is low; (ii) the benefits are targeted at people who

cannot work due to age or disability. It is likely that these characteristics respond to a policy design that was strongly influenced by the potential incentive risks associated with income transfers.¹¹

42. On the other hand, there may be an incentive issue in the targeting mechanism to select the recipients of the income transfers. The score obtained in the targeting instrument constitutes an entry point for the *range* of targeted programs available in the country, so the incentives for getting a low score in the evaluation are now greater. There is certainly anecdotal evidence indicating that there is under-reporting of the information concerning the socioeconomic evaluation of the household. The existence of negative effects in the labour supply or in the acquisition of durable goods is less clear, but this is a possibility that should not be discarded for some households. In any case, that kind of problem is less likely with the Social Protection File than with the CAS File, since the current mechanism is more dependent on predetermined variables, such as adult schooling level.

Social Security programs

43. Social security in Chile dates back to the 1920s, when the first protection laws for salaried workers and social insurance systems for employees and workers were established. These reforms were led by liberal and Christian social groups and were a response to the so-called social question, which was marked by trade union movements in the saltpetre mines at the beginning of the twentieth century and the emergence of left-wing political parties.

44. Social security developed over the next 50 years in a corporatist way, with coverage and benefits differentiated according to the occupational status of the workers. The first social security benefits consisted of old-age pensions, work accident and sickness coverage, and health benefits. Later, family allowances, nursery care, and widow and orphan's pensions were added, as well as severance payments. The benefits were initially financed by employers, and subsequently by a contributions-based system.

45. Towards the end of the 1970s a structural reform unified the existing systems, individual capitalization accounts were introduced to replace the old pay-as-you-go-system, and private organizations were created to manage the pension funds (AFPs). Unemployment insurance was introduced at the end of the 1990s to address one of the main gaps in the social security system (the serious unemployment crisis that arose during the debt crisis of the mid-1980s was tackled by emergency employment programs). Recently, public funding targeted at groups excluded from social security added a first pillar to the system (see Section 5).

46. In spite of the privatization of social security, the government continues to pay most pensions in the country. Of all the old-age pensions (excluding early retirement) paid out in 2004, 81% were paid by the State (Instituto de Normalizacion Previsional - INP) and the remaining 19% corresponded to payments from the private pension administrators (AFP). Around half of the latter were minimum guaranteed pensions, for which the state guarantee represents nearly 80% of the total benefit (Fundacion Nacional de Superacion de la Pobreza, 2005). This payment structure will change over time, as the generations of pension recipients in the new system gradually replace those in the old system.

47. Pension system benefits have been based on contributions, with each person receiving a payment based on their own pension contributions. This is explicit in the new pensions system, which is based on individual capitalization accounts, but it also applied to the old pay-as-you-go system, in which the pension payment was calculated based on the final salary concept, in a proportion that depended on the years of

¹¹ The Finance Ministry and the Budget Office have had a key role in the design and supervision of social policy in the country.

contributions paid. The distribution of pension payments is thus relatively similar to the distribution of salaries in terms of household income quintiles (Larrañaga, 2007).

48. In any case, the social security system is fairly inclusive and covers two-thirds of all senior citizens. This is because most senior citizens who participated in the labour force were social security system contributors. Also, two out of five women who receive pension payments are widows who, although they did not participate in the labour market, had husbands who did.

Social Development Programs

49. Social development policies include a broad range of programs and institutions set up after 1990 that are aimed at improving the welfare of population groups which are at risk because of factors such as location, age, gender, ethnicity and others. These programs, which have a participatory component, are designed both to build capacities and to help to better understand the processes through which the factors determining poverty can be changed. Because of these characteristics, social development experts have evaluated these programs positively, since they go beyond the traditional logic of assistance programs by providing tools that make users active participants in their own development, rather than passive objects of social policy (Raczynski, Serrano and Valle, 2002).

50. Most of these programs are fairly autonomous. In general, they have their own budgets, hire their own personnel and negotiate their budget annually. This makes them more adaptable with respect to reaching their objectives, but it may have a cost in terms of coordination and consistency with other social initiatives aimed at the same target population.

51. Raczynski and Serrano (2005) identify around 400 programs created since 1990, which involve nearly 80 institutions. The key programs include the following: the Chile Joven program, which helps poor youngsters to find jobs; the Mujeres Jefes de Hogar¹² program and the local funding programs of the Fondo de Solidaridad e Inversión Social (FOSIS), all set up during the Aylwin administration; Chile Barrios, which was the main social development initiative of the Frei administration and which had the objective of eliminating the country's shantytowns; and the Orígenes and Chile Solidario programs of the Lagos administration, which tackle, respectively, the development of the aboriginal communities and the elimination of extreme poverty.

Housing

52. Housing policy involves a range of programs that offer access to various kinds of housing, depending on the price of the housing and the corresponding co-payment level. Some programs are funded completely by the State and provide low-cost housing to lower-income groups; others require some degree of co-payment, through previous savings and mortgages, and are aimed at low-income groups that have some capacity to pay; finally, housing subsidy programs are aimed at middle-income groups and require a significant co-payment.

53. There are two kinds of mechanisms for allocating access to housing programs: 1) a points system, which prioritizes access to those who best fulfil the eligibility requirements for each program, and 2) the co-payments structure plus the value of the housing, which produces a self-selection of the population among the different programs.

54. During the 1990s, the main objective of social housing policy was to reduce the housing shortfall. That policy led to a sharp growth in housing in the country, as revealed by comparing the population

¹² Women Head-of-Household Program.

censuses of 1992 and 2002. The number of housing units grew 30.6% during that period, while the population as a whole increased by only 13.3%. As a result, the number of housing units per thousand inhabitants increased by 15.5%, from 252 to 291. Housing policy was a decisive factor driving this trend, as around 60% of the total housing built in the country draws on housing program subsidies.

55. With respect to urban areas, 71.2% of housing is owner-occupied. Just under half of this (31.4% of housing) has been acquired through public housing programs. The share of owner-occupied housing that used public subsidies for purchase is over one-third from the first to the fourth quintiles, and 16.8% in the case of the highest quintile.

56. However, housing policy targeted at low-income sectors concentrated on expanding housing coverage at the expense of extending the cities to ever more distant sectors. The determinant factor in this process was the cost of land, which falls as one moves away from the city, which in turn makes the construction of mass public housing economically viable. Any evaluation of this policy must, however, also include the range of costs associated with the growth of the city into socio-economically segregated housing segments that lack community infrastructure, and are ever more distant from the city centre and jobs.

57. Housing policy changed significantly in 2002. Programs without mortgages were introduced, which were targeted at people with a very low capacity to pay mortgages, especially considering that they also have to pay the operational costs of the property (public utilities, etc.). Programs were also introduced to break the trend of building ever further away from the cities by permitting smaller-scale solutions located within the city, such as constructing buildings to replace old housing, increasing the density of the land areas, and other similar alternatives.

III. Social policy and poverty reduction¹³

58. Poverty analysis in Chile started off in 1987 with the introduction of the Casen survey. However, to explore the relationship between social policy and poverty, it is useful to use a longer series for poverty. An estimate of the poverty headcount can be constructed by means of a parametric approximation of the income density function, provided that there is data for the per capita income, the standard deviation and the Gini coefficient.¹⁴ These data come from national accounts and the Employment Survey of the Universidad de Chile for the city of Santiago, which has been available since the late 1950s.¹⁵

59. The estimated poverty series for the 1960 to 2003 period is presented in Figure 1. The estimated poverty headcount fluctuated in the range of 40% to 50% between the years 1960 and 1985, and then dropped systematically to its present levels. There is a close relationship between trends in poverty and trends in per capita income throughout the period; specifically, the role of growth in reducing poverty becomes clear from the second half of the 1980s (Figure 2).

60. Social policy can contribute to poverty reduction in three main ways. First, social policy contributes to the formation of human capital through the provision of education, health and housing, as

¹³ This section is based on Larrañaga (2007).

¹⁴ The log-normal function is a reasonably good approximation of the income density function. We can estimate the log-normal income density function for each year on the basis of average income and the standard deviation of income. Using a known functional relation between the parameters of the log-normal function and the Gini coefficient, we can estimate the poverty headcount for each year.

¹⁵ The employment survey has an income module that allows calculating the Gini coefficient for household per capita income. The data cannot be used to calculate poverty measures directly, because high inflation in some of the period makes it difficult to compare income levels over time.

well as through social development programs targeted at vulnerable groups. Poverty reduction benefits from the confluence of a greater endowment of capacities and economic growth that creates opportunities to use those capacities. Second, social policy can directly increase the monetary income of households through the provision of monetary transfers.¹⁶ Third, some social programs are directly aimed at modifying the living conditions of the poor, such as Chile Solidario.

Accumulation of human capital

61. Human capital in Chile underwent significant development in the period prior to the phase of economic growth and poverty reduction. Figure 3 presents the changes in indicators of education (percentage of those who do not complete secondary school), health (infant mortality rate) and fertility rates. All these indicators were significantly lower in 1985 than in 1960. This is the result of the public provision of education and health services, which started at the beginning of the 20th century and gained force during the 1950s and 1960s (Arellano, 1985; Valenzuela, 2005). By the mid-1980s, the country was already reporting education and health indicators similar to those obtained by countries such as Colombia, Venezuela and Costa Rica in 2005.

62. We hypothesise that the prior accumulation of social development was a factor contributing to the improved results of the reforms that liberalized and deregulated the economy after 1975. The distinctive element of the successful Chilean experience of economic growth in the Latin American context was the confluence of a favourable range of economic and social elements, including an economic structure that fosters investment and efficiently allocates productive resources, a relatively developed human capital base, solid institutions and, since the 1990s, a reasonable degree of political consensus.

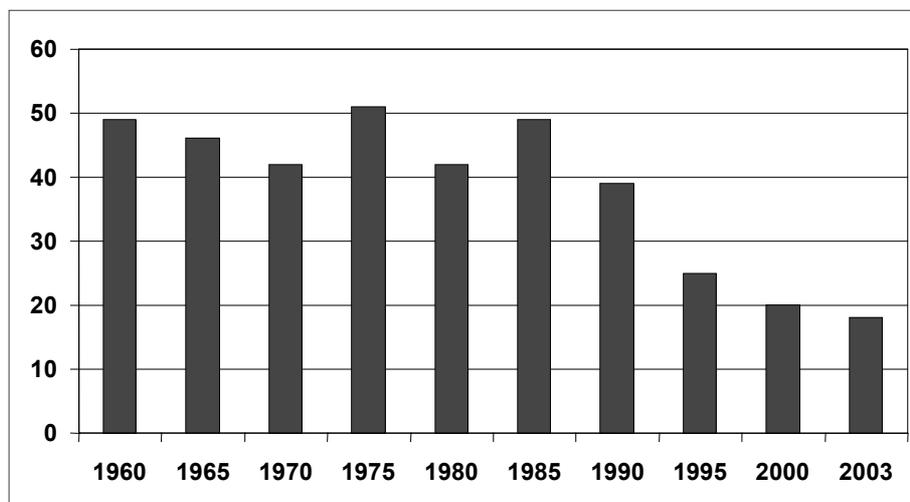
63. There is a well-established relation between human capital and wages. The higher the human capital level, the greater the labour productivity and the subsequent wage. It follows that the impact of economic growth on labour income must have been related to the existing human capital levels. A lower human capital level would have been associated with lower labour earnings, and therefore the impact of growth on poverty reduction would have been smaller.

64. This does not mean that poverty declines with the mere accumulation of human capital, as shown by the evidence for the 1960-1985 period, but rather economic growth is required as a catalyst.

65. The human capital base in Chile is relatively advanced in the Latin American context, but still weak in comparison to developed countries. Recent evidence of this is seen in the results of the 2006 PISA tests, in which Chilean students obtained the best scores in science and reading comprehension among the Latin America participants in the test, and ranked second, below Uruguay, in mathematics. However, the Chilean scores are far below the average scores of OECD countries. The existing levels of human capital may have been enough to reach a minimum income threshold, but not enough to reduce inequalities in relative income.

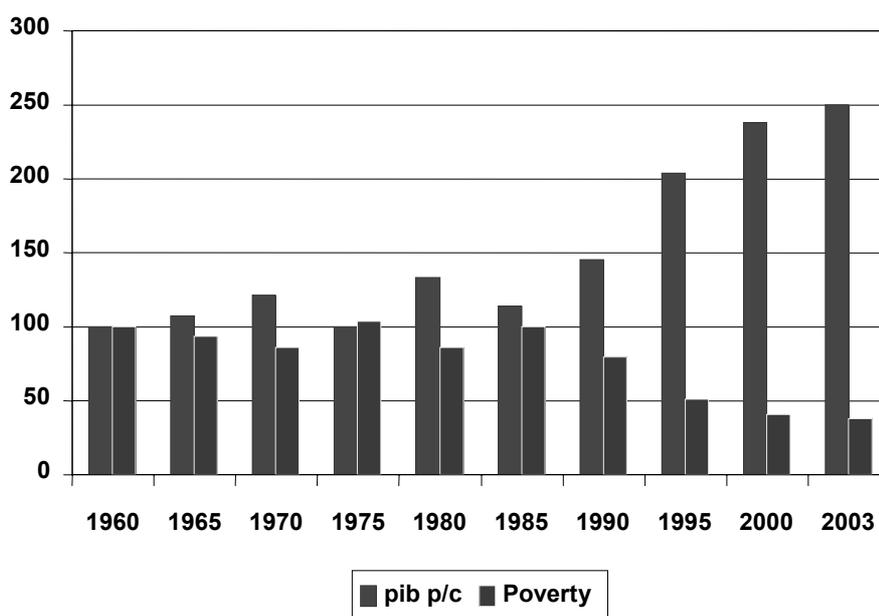
¹⁶ There is also a link between social policy and economic growth. Empirical studies have shown that the GDP growth rate depends on the human capital level, the supply of which depends on social policy, leaving aside factors such as the investment rate, the openness of the economy and other related factors (Loayza, Fajnzylber and Calderón, 2005). Social policy also contributes to social and political stability through a better distribution of the benefits and costs of social cooperation, as shown in the Chilean democratic transition process of the 1990s (Larrañaga, 2005).

Figure 2. Poverty headcount 1960-2003. Estimates based on a log normal density function

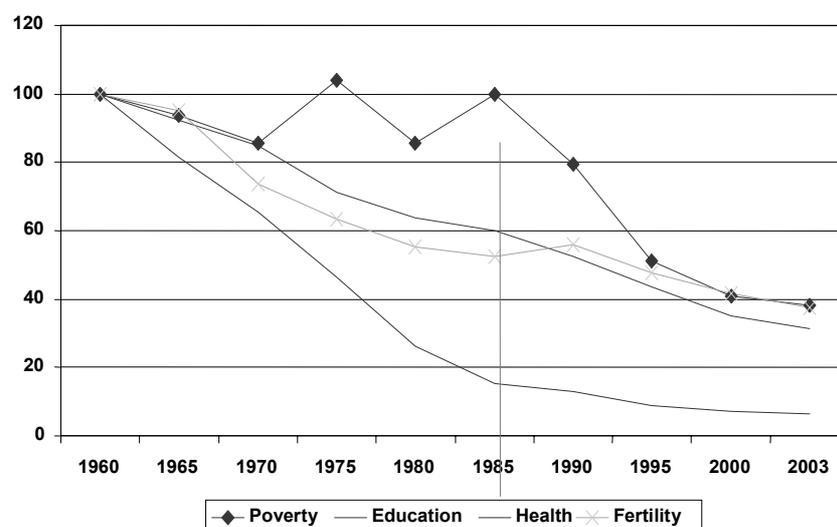


Source: Based on Employment Surveys, University of Chile.

Figure 3. The impulse of economic growth on poverty reduction



Source: Based on Employment Surveys, University of Chile and National Accounts, Central Bank.

Figure 4. Social development preceded economic growth and poverty reduction

Source: Based on Employment Surveys, University of Chile; National Statistics Institute; and Population Censuses 1992 and 2002.

Income transfers

66. Income transfers *have not* been a significant factor in poverty reduction in the country. A simple way to see this is to examine the situation of the second per capita income quintile. A household that belonged to this quintile was classified as poor in 1990, and as not poor in 2003, meaning that households in the second quintile came out of poverty in this period. However, income transfers for this group grew at a lower rate than their other income, so the share of transfers in their total income dropped from 13.3% in 1990 to 12.6% in 2003 (Larrañaga, 2007)¹⁷.

67. The low effect of transfers on poverty is accounted for by the low amount of the benefits. This is related to a policy design that originated in the early 1980s, which sought to avoid the fiscal problems and incentives problems that have characterized some income transfers in the developed countries. This is not necessarily the case any longer. Conditional cash transfers and the negative income tax are examples of income transfers that minimize incentive problems, there have been developments in this direction in Chilean social policy (Section 5).

Anti-poverty Programs

68. Anti-poverty programs are the most direct way that social policy intervenes to modify the living conditions of the poor. A social program is the result of a theory of the causes and determinants of the problem that is to be modified. The effectiveness of the program depends both on how true that theory is and on how well the program is implemented.

69. The return to democracy in 1990 inaugurated a prolific period in terms of anti-poverty programs. All of them were guided by a shared vision: that overcoming poverty required not only economic growth,

¹⁷ Notice that the poverty measure is anonymous, so the analysis applies to the representative household in the second quintile in each year. Notice also that the result is based on the quintile of per capita income, but a similar argument can be made if income is measured in terms of the adult equivalent.

but also direct intervention to affect the factors determining or maintaining the poverty situations over time.

70. The most important programs include Chile Joven, which is targeted at providing working skills to poor youth with employability problems; Chile Barrios, targeted at providing housing and social integration solutions to families that live in shantytowns; and the Fondo de Solidaridad e Inversión Social (FOSIS) programs, which are active in areas such as loans to small firms, training and employment, community development and related fields.

71. The most important anti-poverty program, however, is Chile Solidario. This is a large-scale initiative aimed at modifying the living conditions of the 6% of households who lived in extreme poverty at the beginning of the 2000s. Chile Solidario is recognized as an innovative and comprehensive program for tackling extreme poverty. The program is based on three premises: (i) that the poorest families are relatively excluded from economic growth and from the social policy network itself; (ii) that the country has a range of public benefits and programs that can provide the assistance and support that those families require to overcome extreme poverty; (iii) that to connect families in extreme poverty with the public network and the labour market requires a “bridge” to provide them with information, contacts and commitments, and foster the psycho-social skills required.

72. Chile Solidario guarantees its beneficiaries access to the range of social programs available in education, health, training, and employment, including monetary subsidies. To facilitate this link, each beneficiary family receives personalized support for a period of two years. This involves monitoring the fulfilment of a range of minimum objectives associated with the accumulation of human capital, social capital and psycho-social skills. The program also provides a temporary income transfer.

73. The Chile Solidario program was recently evaluated by Contreras, Larrañaga and Ruiz Tagle, (2008). Their study established that, the program performs relatively well in terms of targeting, as two-thirds of the participants belong to the extreme poverty group and another 15% are poor but not indigent. The exclusion error is estimated at around one-third of the target population, and is due mainly to failings in the coverage of the Cas file, the instrument used for selecting the beneficiaries. Households not evaluated by the Cas file are excluded from Chile Solidario.

74. In terms of earnings, Chile Solidario has had positive results, albeit moderate in magnitude, and the contribution to poverty reduction has been smaller than expected. The employment component seems particularly weak, in terms of the program’s impact both on employment and on the beneficiaries’ access to employment and training programs. This may reflect that the employment and training programs do not adapt well to the profile of the participants in Chile Solidario (who lack basic competencies).

75. In terms of strengthening the psycho-social skills needed to help overcome the poverty conditions, the program has had positive results. Chile Solidario beneficiaries even had advantages over the control group with respect to: a more optimistic view of the future; the evaluation of their ability to produce changes in their living conditions; their perception that the achievement of goals depends on their personal attitudes and capacities; positive self-esteem; and their willingness to take steps in the event of losing their job. The relationship between the results in the psycho-social and economic dimensions is the subject of ongoing analysis.

IV. Social policy and income inequality

76. This section contains a discussion of the relationship between social policy and income inequality in the country. The main question is why there is a high degree of inequality in the country, given the

existence of a relatively advanced social policy and social spending levels that tripled in real terms from 1990 to 2006.

77. It is important to highlight that the high level of income inequality in Chile and other Latin American countries is an endemic problem that does not simply reflect fluctuations of economic circumstances and policies. The origins of inequality in the region date back to the conquest by the Spanish and Portuguese in the 16th century, when the lands, mineral wealth and indigenous labour force were distributed among a few owners. This initial inequality was replicated in the following centuries through selection mechanisms that restricted access to education, electoral participation and the distribution of land. The 20th century was characterized by significant political and social developments that led to more democratic and representative societies, as well as to a State that intervenes more actively in distributing welfare. Nevertheless, income inequality still characterizes the countries of the region, and is linked to the distribution of schooling, the structure of returns to education and assortative mating, among other factors.¹⁸

*Household and income structure*¹⁹

78. The main source of household income is labour earnings, which comprise wages and independent income, and represent around 80% of household monetary income (Casen survey, 2006). As is well-known, household surveys do not capture capital income well, nor the income of the wealthiest sectors of the population. Moreover, the income of independent professionals such as doctors, engineers and lawyers is under-reported, given that a large part is recorded as company income. This is because many independent professionals create small firms for tax purposes, since corporate taxation is lower than personal taxation.²⁰

79. Wages are the most significant component of household monetary income (50% in 2006). Wage inequality in Chile is high compared with other countries. De Ferranti et al (2003) presents the Gini coefficients for the per-hour wage distribution in Latin America. Chile has one of the highest levels of wage inequality in the region, lying in fourth place behind Brazil, Bolivia and Guatemala, although it is not much worse than most other countries in the region.

80. The ratio between percentiles 90 and 10 of the wage distribution was on average 5.5 in the 1996 to 2006 period. This is virtually twice the level of inequality seen in Northern and Central European countries: the Scandinavian countries had rates ranging between 2.0 and 2.4, and the Central European countries between 2.3 and 3.3 (OECD, 1996). The 90/10 ratio is higher in Anglo-Saxon countries, ranging from 2.9 in Australia to 4.4 in the United States.

81. Wage inequality in Chile is closely linked to the returns to education. There is a difference of 3.6 times between the mean wages of university-educated professionals and those of secondary school graduates.²¹ This is a huge income difference for only an extra five years of education and is the result of several factors. These include the high wage premium for skilled work and large differences in the quality of secondary education (a large proportion of students in the universities come from good quality secondary schools, while many of those who do not go on to higher education studied in low quality secondary schools).

¹⁸ See De Ferranti et al (2003).

¹⁹ Based on Larrañaga (2007). All figures have been updated with data from the 2006 Casen survey.

²⁰ Forming companies also allows spending on household goods and services to be tax deductible, and to be offset against VAT.

²¹ The adjusted gap for potential work experience and gender is 3.19 times.

82. Independent worker income is the second-largest item in household income. Independent workers represented 20% of total employment in 2006, received an average income that was 47% higher than that of salaried workers, and also had higher levels of inequality. The Gini coefficient for independent-worker income was 47.4%, while the difference between percentiles 90 and 10 was around 7 times.

83. Employer income as reported in the 2006 Casen survey represented only one-fifth of salaried income. However, it was a significant factor in income inequality, since it represented nearly a quarter of the income of the richest decile. More than 70% of employer income was concentrated in the 5% richest households.

84. Household structure also affects income distribution. The most relevant factors here are labour market participation, assortive mating, and the existence of a secondary nucleus in households. The first two factors magnify individual income inequality, while secondary nuclei reduce inequality.

85. In terms of labour market participation, around 13% of households have no members in the labour force — there is no working person or job-seeker — and here pensions are the main source of household income. Another 41% of households have only one member participating in the labour market, while the remaining 46% have two or more people participating in the labour market. Labour market participation has a direct effect on household income level; in 60% of households in the richest quintile, there are two or more people working, while in the poorest quintile the corresponding figure is only 21%.²²

86. The coefficient of correlation between the years of schooling of the household head and his/her partner is 74.5%, a high figure compared to other countries. This similarity in the levels of human capital in couples reflects the existing social segmentation in the country, and also contributes to greater income inequality by raising individual income inequality. A higher level of human capital raises marketplace remuneration and the probability of labour market participation, so there is a greater difference in household income compared to a situation of lower assortive mating. De Ferranti et al (2003) shows that assortive mating and income inequality correlates among countries.

87. As for a second nucleus, this is found in 19% of households (Casen 2006). Its existence is more common in the lower quintiles, where it usually corresponds to offspring of the household head who, while having their own children or partner, still live in their parents' home. This may be due to economic reasons, since resources are pooled in terms of income, housing and time, thereby making working or studying possible. This is particularly the case with single mothers who live in their parents' household, and whose labour market participation rate or studying rate is significantly higher than when they form their own household (Larrañaga, 2006). All in all, secondary nuclei tend to reduce income inequality, since they can share resources that would otherwise be split among separate households.

Government transfers, taxes and income inequality

88. The main public policy instruments for modifying income distribution are income transfers and taxes, since they have a direct impact on disposable household income.

89. In developed countries, income transfers are massive, absorbing the bulk of social spending resources, and they are financed by means of high taxes and social security contributions. Income transfers significantly modify household income in these countries, and represent a main determinant of the income distribution. In the countries of the European Union, the average Gini coefficient drops from 47% for the

²² Excluding one-person households, the respective rates are 71% and 20%.

household primary income distribution to 33% for the disposable income distribution. This drop is essentially explained by the effect of monetary transfers (Perry et al, 2005).²³

90. On the other hand, income transfers have a low redistributive impact in Chile. This occurs because of the specific characteristics of each kind of instrument. Non-contributory transfers could have a redistributive impact, since two-thirds of spending is concentrated in the two lowest income quintiles. However, these transfers represent only 1.2% of the total monetary income of households (Casen, 2006), so their impact on income distribution is marginal. They reduce the Gini coefficient of household income distribution by around one point—in other words, less than one-twentieth of the inequality gap between Chile and the European Union.²⁴

91. Public pensions represent 6.2% of household monetary income according to the 2006 Casen survey, but they have a low distributional impact. This is because the pensions paid out by the State correspond to the payments from the previous social security system, whose amounts are in line with the remunerations pensioners received while working, even though the pay-as-you-go modality would suggest a greater degree of redistribution. Thus, the Gini coefficient of the distribution of old-age and widows' pensions paid by the State is 40.7%, only a few points below the Gini coefficient of the wage distribution, and the Gini coefficient of the household income distribution with and without State pensions, is 55.9% and 58.1% respectively.

92. Clearly, Chile does not use income transfers for redistributing income as intensively as the developed countries do. In this sense, Chile is more comparable to South-East Asia, where the redistributive role of the State is equally low (Jacobs, 2000). However, the primary income distribution there is less unequal than in Chile, which is characterized by high levels of inequality and low levels of redistribution.

93. On the other hand, the tax structure does not have an impact on income inequality in Chile, since households pay taxes in a relatively similar proportion to their incomes (Engel, Galetovic and Raddatz, 1998). In other words, the tax burden is neutral in distributional terms. This occurs because of the offset between taxes that are more progressive (income taxes) and those that are more regressive (VAT).

94. Studies on the incidence of taxation in various countries around the world tend to conclude that tax systems do not play a significant role in income distribution. This is an empirical result that is based on actual tax payments rather than on the nominal structure of tax rates. The Chilean case is in line with the international evidence in this area. However, the average tax burden also counts, since it determines the amount of social spending that can be financed. In this respect Chile has one of the highest tax burdens in Latin America, with tax revenues representing around 18% of GDP. Nevertheless, this rate is still significantly below that in Europe, where tax revenues represent around 30% of GDP.

Social services and income inequality

95. What are the effects of the public provision of social services on income inequality? This is a key question, given that in Chile half of social spending is allocated to education and health (Table 5). In fact, social services affect income inequality by influencing the determinants of income, mainly human capital accumulation.

²³ Primary income is income before taxes and transfers; disposable income is income after taxes and transfers.

²⁴ This is the impact effect, which does not consider the effects of income transfers on other income sources through their effects on labour supply, private transfers and others.

96. The importance of social services to improving the population's quality of life and overcoming poverty has been discussed earlier. In themselves, these developments have a positive impact on income distribution. However, it is hypothesized that the effect on income inequality is limited by the segmented structure of access to social services.

97. Three population groups are identified in terms of access to social services. The higher-income population acquires better quality and more expensive social services in the private market, and so excludes itself from the public provision of social services; the middle-income population obtains social services through the public supply, but usually gets a better quality service in exchange for a co-payment, whereas the lower-income population obtains lower-quality social services for free.

98. In primary and secondary education, high-income students (10% of total students) attend private fee-paying schools, and receive the best education as indicated by the final school evaluation tests; 40% of students (mostly middle class) attend private subsidized schools and achieve intermediate educational results; meanwhile, the remaining 50% of students (mostly from low-income households) attend free public schools and achieve low results on the same school performance tests.²⁵ The free public schools are open to all students, so this socioeconomic segmentation operates through self-selection by families.

99. Higher education has different rules for access, since there are generally tuition fees. Low-income students can gain entry by means of financial aid programs, as long as they perform their study in the accredited institutions. Socioeconomic segmentation at this level is a product of the university admissions exams, which are closely related to the quality of prior education.

100. As for healthcare, access is based on the obligation to pay 7% of the individual's remuneration into a health insurance plan. This can go to a public insurance system (FONASA), which is a social security system with internal redistribution of resources between rich and poor, or to a private insurance system (ISAPRE), which allocates people into insurance plans based on income and health risk level. The existence of private insurance significantly limits the redistributive possibilities within the public system, since it offers a way out for higher income groups. This in turn requires the injection of public funds to finance the healthcare of the very poor in the public system.

101. Public health insurance offers two alternatives for treatment in the case of medical consultations and simple medical procedures: institutional treatment by public healthcare providers; or an open-choice system offering private healthcare providers with predetermined prices and patient co-payments. In the case of surgery and more complex procedures, in practice the healthcare supply is restricted to treatment in public hospitals.²⁶ Private insurance is basically restricted to private healthcare providers, with different conditions of access depending on the plan chosen and the payment required.

102. This health system structure leads to the allocation of the population with 20% highest income and lowest health risk to the private health insurance system. Middle-income groups mainly use public insurance, but they also widely use the free-choice option for simple treatments, while the low-income population exclusively uses public health clinics and public hospitals. This lower income segment faces problems of quality in terms of patient care and waiting lines for treatment. This situation should change with the introduction of the Auge plan, which includes explicit treatment guarantees for a range of high-priority procedures.

²⁵ There is a standardized test (SIMCE) taken by all pupils in fourth, eighth and tenth grades.

²⁶ As a result of the fees structure of FONASA for the free-choice treatment option.

Outlook

103. The above discussion highlights the fact that at the moment social policy in Chile lacks instruments for directly reducing income inequality. There are also no other public policy instruments in the country with that kind of objective. Prices are freely determined by supply and demand, with no use of price controls or subsidies for basic goods to achieve distributional objectives. The main role of taxes is to generate public resources; this is particularly the case with VAT and other duties that apply a constant tax rate to all goods. Labour policy tends to be focused on employment and job flexibility objective, although there are ongoing discussions about institutional features that determine wages, such as regulations on subcontracting and collective bargaining.

104. There may be several reasons behind the passive attitude that Chilean governments have adopted towards redistributive policy: (i) the assumption that there are no efficient instruments to modify income distribution; (ii) the assumption that inequality will be reduced anyhow through long-term developments such as a more equal distribution of human capital levels and its associated returns; (iii) the assumption that social justice (fairness) is achieved by overcoming poverty and ensuring equal opportunities.

105. All these arguments are debatable. Firstly, there are efficient instruments for income redistribution, if by this we understand policies that are sustainable over time and that do not produce negative incentives. One relatively recent innovation in Latin America is conditional income transfers. These are monetary payments that require children to attend school and control the health of the child and mother (Lindert et al, 2005). Another example is a negative tax on labour earnings, which has become increasingly important in developed countries.

106. Secondly, the argument that development will reduce inequality is supported by the experience of the developed countries. Williamson (1990) argues that the main cause behind the decline in inequality in the USA and Europe between 1900 and 1980 was an increase in the relative salary of unskilled workers. This was the result of the interaction between technical progress, changes in demand patterns, immigration flows and other developments linked to long-term economic growth. Since 1980, there has been a generalized increase in primary income inequality in the developed countries; however, an active income policy has managed to reduce or even neutralize the reversion to inequality in most of those countries (Atkinson, 2000).

107. The relevant questions are whether this historical pattern will be repeated in the Chilean case and whether the waiting times are acceptable. In both cases, the answer is unclear. Economic growth during the last fifteen years has been accompanied by an increase in the wage gap that has favoured workers with higher schooling levels, as a result of the rising demand for highly skilled labour. However, the recent drop in income inequality –reported in Table 1– is closely linked to a compression of the wage gap between high and low skill groups (Larrañaga and Herrera, 2008). This could represent an inflexion in the inequality trend, associated with the sharp increase in higher education coverage of recent decades and the consequent increase in the supply of skilled labour. However, there is still insufficient data to reach a definitive conclusion on the issue.

108. Finally, it is not enough to concentrate efforts on reducing poverty and equalising opportunities. Inequality of results also matters for social stability. Besides, further advances in reducing poverty and equalising opportunities may require a reduction in income inequality. The effectiveness of economic growth at reducing poverty decreases as poverty rates reach low levels, requiring redistributive policies that act as a complement to growth (Perry et al, 2005). On the other hand, providing equal opportunities in the context of high income inequality is difficult, as demonstrated by the Chilean experience in recent years.

V. Future developments in social policy

109. There are a range of initiatives being developed that represent significant innovations in social policy in Chile: (i) an income transfer for persons aged over 65 from the population with the 60% lowest income; (ii) a negative income tax and an extension of child benefits for households from the poorest quintile; (iii) an increase of 50% in education funding for children from the population with the 40% lowest income; (iv) a child development policy for children under age 5 in the public health system (Chile Crece Contigo).

110. This section analyzes the first two initiatives, since they have a short-term impact on poverty and income distribution indicators. Income policy for over 65 year olds is part of a social security reform already approved by Parliament. Income transfer to the poorest quintile is a new initiative that will be sent to Parliament in the next few months for approval and already has sufficient political support.

*Transfers for over 65-year-olds*²⁷

111. 73% of men and 58% of women over 65 years of age receive contributory pensions from the social security system (2003 Casen survey). These figures include those receiving old-age, disability or widows' pensions, including guaranteed minimum pensions for those who fulfil the contribution requirements if the corresponding pension falls short of the defined minimum. Moreover, 14% of men and 17% of women over 65 years of age receive non-contributory pensions. This is a subsidy paid out to those who are in poverty and who are not covered by the contributory social security system.

112. A recently passed pension reform law (2008) introduced significant changes in the Chilean social security system. One key innovation is the merger of contributory and non-contributory pensions into a new system with a minimum guaranteed pension (PBS). This is a payment made to all individuals aged 65 and over who: (i) do not have pension coverage; (ii) and whose *nuclear families* are among the six lowest income deciles. The PBS totals US\$ 400 a month in the steady state.

113. One-third of those 65 and over fulfil the first eligibility requirement for the PBS. Nearly 70% of this group have a family income below the minimum threshold, so, taking into account both requirements, around 23% of all senior citizens are eligible for the PBS. Most (70%) are women, since they have had less labour market participation and therefore less access to contributory pensions; in addition, they have a longer life expectancy and so form a larger percentage of the population of 65 and over.

114. The objective of the PBS is to guarantee social protection to senior citizens who are not covered by contributory pensions and who belong to households in the lowest 60% income level. The PBS is complemented by a payment that supplements the contributory pension payment when the latter is below US\$ 400. This payment helps reduce the negative incentives that the PBS could normally have on pension savings, since there is also a premium for having actually paid social security dues.²⁸

115. Eligibility for the PBS is based on the socioeconomic level of the beneficiary's nuclear family, defined by the spouse and any children still in studies, up to 24 years of age, who live in the same household. It does not include other household members, nor does it include economically independent children, whether or not they live in the same household as the beneficiary. The State thus assumes responsibility for senior citizens who do not generate enough income, independently of the resources of relatives other than the spouse, whether they reside in the same household or not. This is a kind of "anti-

²⁷ This section is partly based on Larrañaga (2007).

²⁸ The argument is important for groups that have the option of not making pension contributions, such as independent workers, informal salaried workers and those who carry out occasional work.

family” policy, since the State replaces the family as the main institution responsible for individual welfare. The norm to date has been that eligibility for social programs depends on the socioeconomic condition of the household as a whole, which is a more “family friendly” policy, because the main responsibility lies with the family and the role of the State is subsidiary.

116. The nuclear family income condition for determining eligibility fosters the *preservation* of extended households, comprised of more than one family nucleus, compared to a situation in which eligibility is determined by household socioeconomic level. This may seem contradictory, but it is explicable because in the latter case eligibility determined by household level “punishes” living together with children who are economically active, as it increases the probability of not qualifying for the benefit. Meanwhile, eligibility by nuclear family *does not* punish senior citizens who maintain economically active relatives other than their direct family nucleus. This occurs because the income of the family nucleus does not increase or decrease with the presence of other relatives in the household.

117. The introduction of the PBS can produce effects on household formation. The increase in disposable income can induce changes in the formation of households, allowing the break-up of one household into two households if there are preferences in this direction (preferences that can be met with the higher income). The opposite development cannot be disregarded; some families could for instance extend an invitation to a richer grandparent to join the household.

118. Preliminary estimates of the impact effect of the PBS anticipate an increase of 11.5% in the average income of the first household quintile and 9.5% in the first two quintiles, and a reduction of around 2 points in the percentage of poor households. Any significant income transfer will change household decisions on issues related to determining income. The net effect of the policy is consequently smaller than the impact effect, but would probably continue to be significant.²⁹

Proposals of the Work and Equity Commission

119. In the middle of 2007, the Chilean government established a commission comprised of 47 people, including experts and political and social leaders, to study the equity problem in the country and to propose public policy measures to obtain better results in this area. The commission’s work lasted eight months, part of which was dedicated to presentations by social organizations, such as trade unions, employers associations, community representatives, churches, and similar organizations. In May 2008, the Commission completed its work and presented a range of proposals covering four areas: social policy, employment and training, collective bargaining and opportunities. Subsequently, the government formed an inter-ministerial team to convert the proposals into specific public policy measures; its work is expected to last throughout 2008.

120. Two of the proposals agreed by the Work and Equity Commission are directly related to the objective of this report, since they are targeted at having an immediate effect on income distribution and poverty. These are a subsidy or supplement to employment income and a monetary transfer per child. Both are transfers targeted at households in the 20% lowest socioeconomic level. As with the new income transfer for senior citizens, these income transfers are innovative in terms of content and the amount of benefits compared to the existing social policy.

121. The employment income subsidy operates along the lines of the Earnings Income Tax Credit (EITC) in the United States and the Working Tax Credit (WTC) in the UK. It supplements employment

²⁹ Note that the impact effect better approximates the welfare effects associated with that policy, since it is an income effect and raises welfare levels beyond possible substitutions between welfare components, as may occur with monetary income and time.

income and is structured into two brackets: (i) a 30% rate for incomes up to US\$ 300 per month; (ii) a decreasing rate between 30% and 0% for incomes between US\$ 300 and US\$ 600. The subsidy is only available to workers from the lowest income quintile, as determined by the Social Protection File (FPS) score.

122. This transfer only operates if the person is employed, and therefore is more effective with high employment levels. Consequently, the proposal is to pay one-third of the transfer to the company hiring the worker, in order to make it a pro-employment subsidy.

123. The employment income supplement benefits salaried and independent workers, as long as they are making social security payments. This requirement has two objectives: to foster formal employment and to serve as a self-selection mechanism for independent workers. In Chile, around 20% of workers work independently and in general do not make social security payments. Social security affiliation is compulsory in Chile, but it only occurs in practice with salaried workers, since employers have to withhold social security contributions directly. The social security dues cover pensions and health insurance, and represent around 20% of gross income. Therefore, for independent workers the employment income subsidy is basically a subsidy of social security contributions.

124. The second proposal is an income transfer to households from the lowest quintile, and totals US\$ 20 per month per child. There is no defined upper age limit for eligibility, but a suggested age could be 15. The objective of this transfer is to raise the income level of the poorest households. It would be additional to the current per child transfers (SUF and family allowance), and the proposed amount is more than double the present benefit amount. In practice, it implies tripling the per child benefit in households from the lowest income quintile. It is also a conditional income transfer, since it would require the children to go to school and to receive health checkups.

125. The combined effect of these transfers would reduce poverty from 13.1% to 9.9%, extreme poverty from 3.1% to 1.9%, and the 90/10 household income ratio from 9.1 to 7.7. These estimates come from the Work and Equity Commission.

126. The employment income supplement has no negative effect on personal initiative, since the transfer is only given to people who are working, with a relatively smooth reduction of the benefit as employment income rises. The effect is indeed quite the opposite; the objective of the transfer design is to foster the labour market participation of low productivity individuals, such as the young and women with low skill levels.

127. Meanwhile, the per child transfer has a pure income effect on the household and could discourage labour market participation by people with higher time opportunity costs, such as mothers in large family units. However, it is limited over time, since it disappears once the child reaches a certain age. Furthermore, it works in tandem with the employment income supplement, so its potential negative effect on the supply of labour may be more than offset by the effect of the other transfer.

128. A bigger problem may be the treatment of incentives in terms of the score obtained in the Social Protection File. The addition of these two new transfers to the range of benefits channelled through the FPS implies a significant increase in the amount of resources available to households that obtain a sufficiently low score in that targeting instrument. As a result, the incentives to obtain a low score are increased. Also, anyone who has already gained access to these social benefits stands to lose them in the event of obtaining a higher FPS score.

129. The existence of a discrete cut-off point in the FPS score for the receipt of the benefit is particularly complex, since the probability of access to the new benefits drops from 100% to 0% when the

household crosses the cut-off point between the first and second quintile of the FPS. A related problem is the unequal treatment of households from the second quintile, since many of them will end up having a lower disposable income than households from the first quintile that have access to the new transfers. These issues need to be modified in the implementation stage of the Equity Commission's proposals, in order to maximise their effectiveness.

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