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# Primary inequality and redistribution: where does France stand in Europe?

Household disposable income inequality, which accounts for both direct taxes and social benefits, is relatively well known. The associated results are consensual: France appears to have relatively low inequality in European comparison. However, it is still important to distinguish between what is due to the situation before redistribution (primary inequality) and what is due to redistribution *per se*.

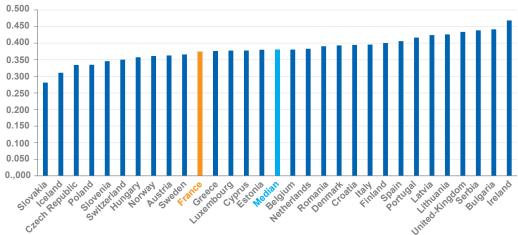
Such an analysis raises many methodological issues. In particular, how should pension benefits be considered? Although the pension system is mainly insurance-based, it includes significant redistributive components. Therefore, allocating pensions in full either to primary income or to redistribution is questionable. To address this issue, we integrate them into primary incomes, but test the robustness of the results obtained to this choice. Furthermore, should we consider net, gross, or "super-gross" wages including employers' social insurance contributions? We choose "super-gross" wages, because they correspond to what the employer is prepared to pay for the work performed.

Once these methodological issues have been addressed, the main results are as follows:

- 1. In France, primary inequality is slightly below the median of European countries and below that of our large neighbours. This result remains true if we focus on the non-retired population.
- 2. Redistribution plays a bigger role in reducing primary inequality in France than elsewhere, with this reduction spread almost equally between social benefits (excluding pensions) and direct taxes, despite the latter being six times larger.
- 3. Social benefits reduce inequality by much more in France than the median of European countries. This is mostly due to the fact they target lower incomes more than the European median. Their volume is also above the median, albeit to a lesser extent. Taxes also prove more redistributive in France, but mainly thanks to their volume, whereas their targeting hardly exceeds the European median.

Consequently, the size of the French tax and benefits system does not result from the inefficiency of a system that would aim to compensate for strong primary inequality rather than to deal with them at the root. There is, however, room for manoeuvre to improve the redistributive performance of this system.

### Predistribution inequality: primary income Gini index, including pensions and per consumption unit



Reading: in France, the Gini index of households' primary income reaches 0.374 vs. 0.380 for the European median. Access to German data was not allowed by the national institute Destatis.

Source: EU SILC data and France Stratégie computations.

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### INTRODUCTION

The debate on income inequality has been particularly lively in recent years, due to globalization and tougher fiscal and social competition (e.g. risks of dumping and race to the bottom). This debate thus takes place in an eminently international context. A look at OECD statistics shows that, among the advanced economies, the 18 least unequal countries (including France) are all in Europe, which is also the only region in the world to offer fully harmonised statistical data.

This note therefore consists of a comparison between European countries, based on harmonised microdata from the SILC survey¹ corresponding to 2017 income in 30 countries. It does not include Germany, as the national institute Destatis refused access to its data. This is not neutral in terms of France's positioning in Europe, in a context where German income inequality has exceeded the French level since 2014².

More precisely, the aim of this work is to situate France from the dual point of view of primary (predistribution) inequality and redistribution policies, resorting in each case to an analysis by major determinants<sup>3</sup>. Accordingly, we study:

- Inequality between households for different types of income before redistribution (labour income, capital income) and for different age groups. We also assess the impact of household formation, as spouses may have significant differences in individual income (this refers to 'private redistribution', linked in particular to gender inequalities);
- Downstream, the impact of each major type of tax and benefits, disentangling the volume and targeting effects, by comparing impacts with the amounts transferred.

There are many methodological issues at stake.

A first issue concerns the scope of primary income, received before tax and benefits. This includes, as a minimum, the sum of labour and capital income, and some transfers between households (e.g. alimony). Nevertheless, we have to deal with (quasi-) contributory benefits, which are more akin to intertemporal transfers than to redistribution between individuals or households, while their link with professional activity may be very direct or looser<sup>4</sup>. In particular, in a number of countries, including France, the pension system,

albeit largely insurance-based, has significant redistributive elements. In addition to the minimum old-age incomes which are not part of the contributory system (we include them in the redistribution), pension systems include minimum pensions ("minimum contributif" in France), survivors' pensions, and the coverage of periods without contributions due to certain social risks. It is therefore questionable whether pensions should be integrated into primary income or into redistribution, but a study of cross-sectional inequalities does not allow for a more refined approach<sup>5</sup>. An alternative way to tackle this difficulty is to conduct the analysis on non-retirees only, which is what some international data sets seek to approach (see Box 2). We have adopted such an approach, but only to test the robustness of our results. Indeed, we had to focus on the analysis in the general population to be consistent with the very purpose of our work. Namely, we start from the well-documented stylized facts on disposable income inequality in order to identify what comes from primary inequality and from redistribution. In the general population baseline scenario, we thus chose to include pensions in primary income: the opposite choice would have resulted in attributing zero income to almost all retirees, whereas their pension can be largely seen as a "deferred wage".

A second methodological issue is related to the scope of direct taxes taken into account. For labour income, we consider super-gross income, i.e. income before any direct deductions. We thus include the employers' social insurance contributions in redistribution, and therefore the effects of their exemptions and reductions on low wages, or those of the restriction of the tax basis to labour income, sometimes capped.

Finally, we follow the standard definition of household disposable income, namely the sum of primary income and cash benefits net of direct taxes.

Consequently, we exclude from the analysis:

- on the one hand, large transfers in kind in the form of services provided for free (notably education and health) or at subsidised prices (social tariffs);
- on the other hand, several types of taxes (VAT, environmental taxation, business taxation, inheritance tax, etc.), although they all have significant redistributive effects.

Diagram 1 summarises the scope of income and transfers taken into account in our analysis.

<sup>1.</sup> The responsibility for the various conclusions drawn here is entirely that of France Stratégie and the authors. This document does not in any way commit Eurostat, the various national statistical institutes or the European Commission. We would like to thank the 31 national institutes that have given us access to their data.

<sup>2.</sup> Eurostat indicates for 2018 Gini indexes of disposable income of 0.311 in Germany and 0.285 in France (estimates based on the SILC survey we have exploited).

<sup>3.</sup> The full results of this study are presented in a working document associated with this analysis note: Rousselon J. and Viennot M. (2020), Primary Inequality, Redistribution: A European Comparison, Working Paper, No. 2020-17, December.

<sup>4.</sup> Thus, unless otherwise specified, we include in primary income daily sickness or accident benefits, whose recipients are still generally considered to belong to the employed labour force, as opposed in particular to recipients of unemployment benefits, which we have systematically excluded from primary income.

<sup>5.</sup> The alternative to the so-called "cross-sectional" data would be that of "longitudinal" data, which allow the monitoring of a panel of individuals over time (and therefore notably at the time of the liquidation of their pension, making it possible to compare the level of pensions with the former labour income of their beneficiaries).



### Diagram 1 – Primary and disposable income: scope of the study

Super gross labour income Wages (including employers' social insurance contributions) Non-wage labour income Non-cash labour income Super gross labour income Wages (including employers' social insurance contributions) Non-wage labour income

# Replacement income Public pensions (excluding old-age minimum income) Private mandatory pensions Survivor's pensions Sickness and accident benefits

Replacement income
Public pensions (excluding
old-age minimum income)
Private mandatory pensions
Survivor's pensions
Sickness and accident benefits

### Household formation Capital income Financial income

Property income (including real estate)

### Household formation Capital income

Inter-households cash transfers (including alimony)
Free housing

### Primary income per consumption unit

### **Household social benefits**

Family benefits

Benefits against social exclusion (including old-age minimum income)

Housing allowances

## Individual social benefits Unemployment benefits Disability benefits Scholarships

Individual social benefits
Unemployment benefits
Disability benefits
Scholarships

#### **Direct taxes**

Social contributions and direct taxes (including employers' social insurance contributions)
Capital or wealth tax (including property tax)

Disposable income per consumption unit (="living standard")

#### Box 1 - Methodology

Since redistribution is essentially organised around households, the same holds for the measurement of inequality. To this end, one must take into account the composition of households, in order to convert their income into a standard of living, using an 'equivalence scale'. It incorporates classically the number of people in the household, their age and the existence of economies of scale. To do this, we use the so-called "modified OECD equivalence scale", used in particular by the French national institute INSEE and Eurostat. If the standard of living of households is attributed to their members, it is then possible to measure inequality between individuals. However, it is also possible to look at inequality between individuals further upstream, before household formation.

Inequality in disposable income in France, as measured by the Gini index, is below the median, according to a joint diagnosis by the OECD and Eurostat. Indeed, the French Gini index stood at 0.285 for 2017 income according to the European Institute, which, beyond the median results, indicates an average of 0.308 for the EU 28, including Germany (we give our own detailed results in Chapter 3 of the working paper, section 1).

The rest of this note therefore attempts to disentangle the origin and factors of this relatively egalitarian positioning of France, by analysing predistribution primary inequality, and then the extent of redistribution and its components.

There are different indicators for measuring inequality, focusing on the whole income distribution or more on the ends of the scale. Given the nature of the data used, we have chosen to analyse inequality using the Gini index, which varies between 0 (perfect equality) and 1 (extreme inequality), thereby quantifying the gap between the income distribution and a situation of perfect equality.

The analysis is based on Eurostat SILC survey data, for all EU countries except Germany (see above) and Malta (data gaps), but including the United Kingdom, plus, outside the EU, Norway, Iceland (2016 data), Serbia and Switzerland<sup>6</sup>. Subsequently, for the sake of simplicity of presentation, the countries in our sample will be confused with Europe.

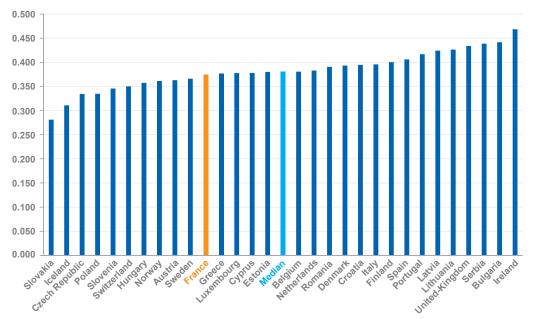
# PREDISTRIBUTION INEQUALITY BETWEEN HOUSEHOLDS IS LOWER IN FRANCE THAN ELSEWHERE IN EUROPE

### Primary inequality is slightly lower in France than elsewhere in Europe

The French Gini index of primary income lies 1.7 % below the European median, with almost two thirds of countries (19 out of 29) recording a higher level of inequality (see Figure 1).

This low level of inequality before redistribution may seem to derive partly from the French pension system, the benefits of which are here included in primary income. If we limit





Reading: in France, the Gini index of households' primary income reaches 0.374 vs. 0.380 for the European median.

<sup>6.</sup> The initials used in this note are as follows: AT (Austria), BE (Belgium), BG (Bulgaria), CH (Switzerland), CY (Cyprus), CZ (Czech Republic), DK (Denmark), EE (Estonia), ES (Spain), FI (Finland), FR (France), GR (Greece), HR (Croatia), HU (Hungary), IE (Ireland), IS (Iceland), IT (Italy), LT (Lithuania), LU (Luxembourg), LV (Latvia), NL (Netherlands), NO (Norway), PL (Poland), PT (Portugal), RO (Romania), RS (Serbia), SE (Sweden), SK (Slovakia), SI (Slovenia), UK (United Kingdom).



### Box 2 – Articulating our findings with OECD "market inequality"

The economic debate is peppered with allusions to a high level of inequality before redistribution in France. While these assertions do rarely come with a precise statistical source, they frequently refer to "OECD data".

This organisation publishes an indicator of market inequality for which France appears particularly unequal: the Gini index of the underlying market income amounts to 0.519, and only two of the 24 other OECD members covered by our study, Ireland and Greece, display a higher level.

However, this indicator presents significant difficulties for international comparison, since the income considered excludes public pensions but includes mandatory private pensions, which distorts the comparability between countries having chosen different pension systems. For example, in countries with virtually no mandatory private pensions, such as France, pensioners will generally have almost no "market" income, unlike those in countries with mandatory private pension systems of the "pension fund" type. This may also introduce a bias related to differences in age pyramids.

the analysis to the field of non-pensioner households (see Figure 2), France's relative position appears less favourable (only 15 countries have higher inequality), but primary inequality, although it becomes slightly higher, remains in France 1.9% below the European median.

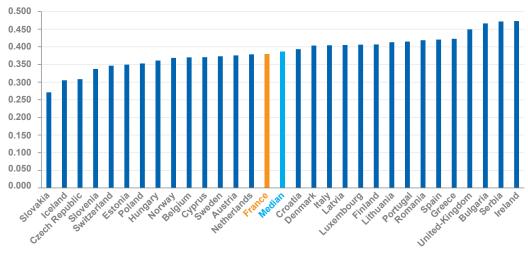
The low level of inequality before redistribution in France is even more marked if we analyse income inequality between individuals before household formation, i.e. neglecting the effects of the presence of children and,

It is possible to avoid these pitfalls by restricting the calculation to the working age population, which the OECD does by publishing a second inequality indicator for 18-65 year olds only. The various Gini indices then fall, but the French index, which drops to 0.451, remains higher than those of 20 of the 24 other OECD countries studied. Nevertheless, the comparison made possible by this indicator is itself distorted by the choice of an age limit set at 65. Indeed, this leads to a comparison of heterogeneous populations depending on countries, by excluding some workers in those with high effective retirement ages, while keeping many retirees in other countries where these ages are fairly low. For these young retirees, the difference in treatment between public and private pensions also persists.

Finally, the OECD does not carry out a harmonised survey to collect its data, but uses for each country the (often national) data deemed most reliable, which does not ensure the same comparability as the surveys conducted by Eurostat. This difference in sources seems to explain half of the difference between the Gini index that we calculate for France and the OECD's market inequality index for 18-65 year-olds. The rest of the gap results from the above-described differences in the scope of the indicator.

above all, of the pooling of resources between spouses. In that case, the Gini index turns out to be 6.2% lower than the European median. Only seven countries display a lower Gini index, including the four Scandinavian ones. This finding, when compared with the previous ones regarding households, indicates that so-called 'private' redistribution within households is comparatively low in France. It lowers the Gini index by 21.9% instead of 25.5% for the European median, i.e. a negative difference of 14%.

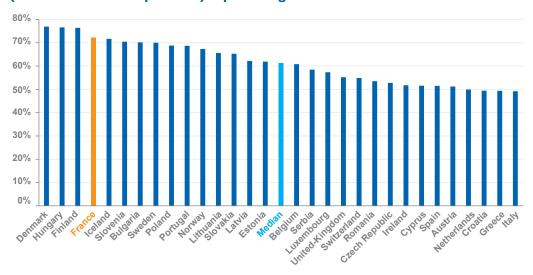
Figure 2 — Predistribution inequality for non-pensioner households: primary income Gini index, per consumption unit



Reading: in France, the Gini index of non-pensioner households' primary income reaches 0.379 vs. 0.386 for the European median.

<sup>7.</sup> Defined as households not receiving any retirement pension.

Figure 3 — Women median primary income, including pensions (direct and survivor's pensions) in percentage of men's



Reading: in France, a woman median primary income, including direct and survivor's pensions, equals 72% of a man's. This ratio reaches 61% for the European median.

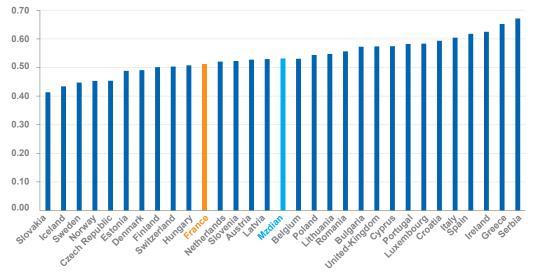
Source: EU SILC data and France Stratégie computations.

One reason for this is the relatively low median primary income gap between men and women, which is 28% lower than the EU average (see Figure 3). This result largely reflects the good participation of French women in the labour market over a long period of time, which implies smaller gaps in labour income but even more so in pensions. On the one hand, in some other European countries the catching-up of female activity is more recent (the cohorts of retired women are hardly concerned); on the other hand, the existence of redistributive mechanisms within the pension system are an additional gender gap reduction factor. Thus, excluding pensioners, France's relative lead is less clear-cut, with the gender gap nevertheless remaining 7% below the European median. Excluding pensioners, private redistribution reduces the French Gini index by 24.4% compared with 26.3% in the European median, i.e. a negative gap halved to 7%.

Lower inequality in labour income largely explains the rather low level of primary inequality in France, as it is the main source of primary household income. In France, the labour income Gini index lies 3.4 % below the European median (see Figure 4).

The relatively low inactivity of the core working age population explains such a result. Indeed, the increase in the Gini index linked to inactivity outside education (and retirement) is almost 22% lower than the European median, which more than offsets the impact of unemployment on inequality, which is more than 10% higher. This finding on inactivity reminds us of the importance of basing international comparisons on the employment rate rather than the unemployment rate when it comes to objectifying the social situation.

Figure 4 – Labour income inequality for non-pensioners, before redistribution



Reading: in France, the Gini index of non-pensioner individuals' labour income reaches 0.512 vs. 0.530 for the European median.



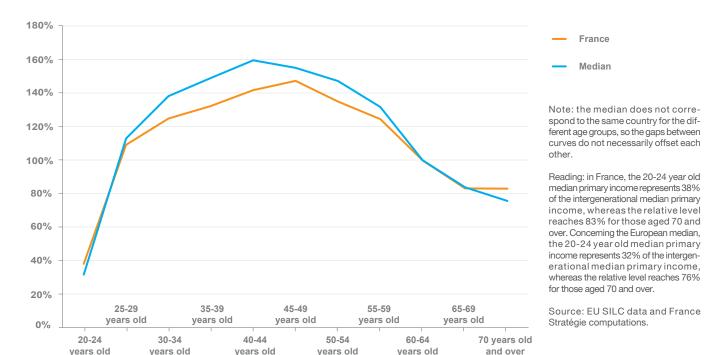


Figure 5 – Individual median primary incomes by age, as a share of median primary income

Focusing on the population in employment, inequalities are lower when the analysis is limited to wage earners. The addition of the self-employed increases the Gini index of labour income of the population in employment by more than 10% (instead of +6% in the European median, with an effect that remains upward in almost all the countries studied)<sup>8</sup>.

Low inequality in capital income also contributes to the low level of inequality before redistribution in France, even though these incomes are structurally much more concentrated than labour income throughout Europe, and represent a much smaller share of primary income. France has the lowest inequality in this respect among the thirty countries analysed, with a Gini index 7.6 % below the European median. The finding that capital income inequality is substantially lower than the European median applies to both financial and property income.

Another major source of inequality when basing analyses on cross-sectional data relates to the life cycle, with individuals or households not at the same stage of their working careers and possible wealth accumulation. If we look first at differences between age groups, we can see that the French curve is slightly flatter than the European median (see Figure 5). Indeed, in terms of primary income, the relative situation of those aged 70 and over is some-

what more favourable than in the European median, and the same applies to the youngest age group. Symmetrically, the core working age population benefits from a slightly less marked increase in median primary income (per consumption unit).

## REDISTRIBUTION FURTHER REDUCES INEQUALITY IN FRANCE

### A reduction in inequality 10% above the median

Comparing redistribution in different countries involves relating distributions of disposable income to distributions of predistribution income. This can be done in absolute terms (that is, in terms of a reduction in Gini index points), but it is more relevant to calculate evolutions in relative terms (percentage reduction in the index) insofar as a given tax and benefits system will mechanically redistribute more in absolute terms in a country where primary income is more unequal (and will redistribute less in the opposite case).

Within this framework, France appears as a country with a redistribution slightly above the median, at least in relative terms. In fact, redistribution lowers the Gini index in France by 24.8%, compared with 22.6 % for the European median. France is therefore characterised by a redistribution impact that is almost 10% higher than the European

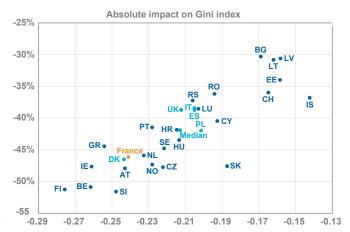
<sup>8.</sup> A detailed analysis of the factors influencing inequality in labour income for people in employment, particularly wage earners (differences in hourly wages, working time, etc.), will be the subject of subsequent work.

### Figure 6 – Absolute and relative impact of redistribution on inequality

#### A - Excluding pensions (in primary income)

### Absolute impact on Gini index BG • RO -15% Relative impact on Gini index EE• -20% • HU -25% -30% •BE -35% -40% -0.19-0.17-0.13-0.03

#### B - Including pensions (in redistribution)



Note: the further from the origin (high left corner), the stronger the redistribution in the country.

Reading: in France, redistribution excluding pensions lowers income inequality as measured by the Gini index by 0.093 point namely 24.8%. In the European median, redistribution lowers this Gini index by 0.091 point, namely 22.6%.

Source: EU SILC data and France Stratégie computations.

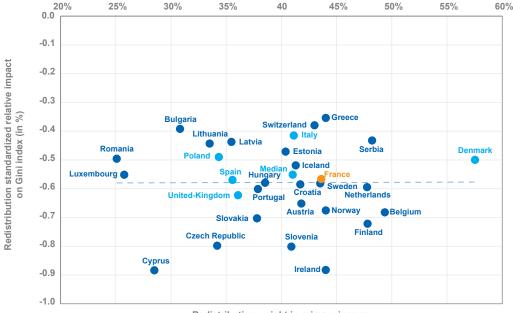
median (see Figure 6a); the difference is even slightly higher (almost 12%) if retired people are excluded from the calculation. However, the relative impact of redistribution is higher in 11 of the countries considered.

This finding of a stronger impact of redistribution in France is still valid if one includes pensions (and sickness benefits) in the redistribution, and not in primary income. On such an assumption (see Figure 6b), we mechanically observe both an increase in primary inequality and, downstream, an increase in its reduction through redistribution, with the impact of redistribution remaining in France slightly more than 10% higher than the European median.

### An above median redistribution mostly resulting from the overall volume of redistribution

However, it is worth comparing the contribution of the tax and benefits system to redistribution with the budgets at stake. Indeed, the vast majority of social expenditure and direct taxes reviewed contribute intrinsically to inequality reduction. Consequently, it is interesting to determine whether the impacts identified rather derive from the amounts of the corresponding transfers or from their targeting level (in the case of direct taxes, "targeting" depends on the progressivity of the effective rate, in the case of social benefits, on the selectivity of eligibility conditions).

Figure 7 – Targeting and volumes of redistribution, excluding pensions



Note: the further down a country, the more targeted its transfers, the further right, the larger the amounts transferred.

Reading: in France, direct taxes and social benefits excluding pensions represent 43.7 pps of primary income and one pp of redistribution reduces the Gini index by 0.57%. In the European median, direct taxes and social benefits excluding pensions represent 41.0 pps of primary income and one pp of redistribution also reduces the Gini index by 0.57%.



Figure 8 – Direct taxes and social transfers analysed, in pp of households' primary income



Note: primary income considered here is super-gross income, so that the rates obtained are not directly comparable to those usually calculated based on gross income after employers' social insurance contributions.

Reading: in France, the direct taxes taken into account in our analysis represent 37.1 pps of primary income, compared to 34.3 pps in the European median.

Source: EU SILC data and France Stratégie computations.

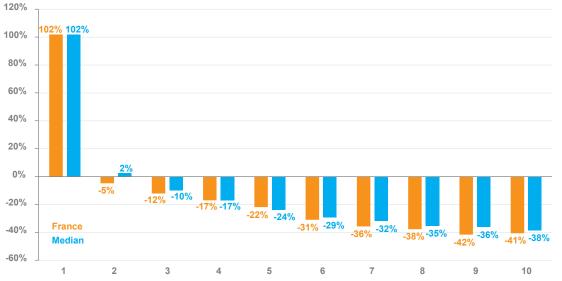
In this respect, we observe that in France the volume of redistribution (excluding pensions) exceeds the European median (redistribution transfers represent 44 points of primary income compared to 41 - see Figure 7), but not by a very significant margin, contrary to popular belief: redistribution represents 57 pps of primary income in Denmark, or 48 pps in the Netherlands. Therefore, France does not appear here as the spending leader it is on social expenditure as a whole. Moreover, Figure 7 does not show any deviation from the European median in terms of targeting.

Thus, the comparatively fairly high level of French redistribution arises from the amount involved, rather than from its targeting. This volume effect is comparatively

somewhat more pronounced for direct taxes than for social benefits, as shown by Figures 8a and 8b. The extra volume of taxes compared to the European median reaches 8.2%, instead of 5.6% for social benefits.

The two above-mentioned figures also indicate that the orders of magnitude of social benefits in cash are, in France as elsewhere, between five and six times lower than those of direct taxes. Indeed, the latter also finance other public policies (services in kind such as health or education, public goods in fields ranging from culture to public order, infrastructure, etc.), as well as pension benefits and daily allowances (which are not considered here in redistribution but in primary income).

Figure 9 – Magnitude of redistribution, measured in pp of primary income, for each primary income decile, per consumption unit

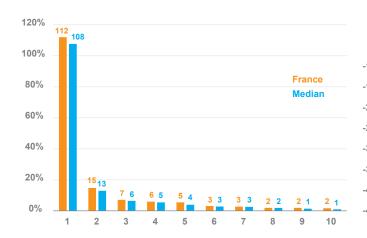


Note: the magnitude of redistribution quantified here should not be compared with the "redistribution weight" in Figure 7, which adds up the masses of transfers, whatever their sign, and does not relate them to the respective incomes of recipients and payers.

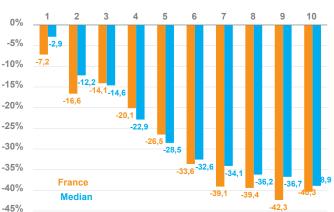
Reading: in France, the median disposable income of the last primary income decile represents 59% of this primary income; this figure rises to 62% for the European median.

### Graphique 10 – Transfers in primary income pp, for each primary income decile, per consumption unit

#### A - Social cash benefits (excluding pensions)



#### B - Direct taxes



Reading: in France, social benefits represent 1.7 pps of primary income in the last decile; this figure amounts to 1.0 pp for the European median.

Source: EU SILC data and France Stratégie computations.

## Box 3 — Benefits are either more extensive or better targeted than elsewhere, direct taxes are higher across the board but not more progressive

The precise measurement of contributions to redistribution of the different parts of the tax and benefits system is a complex operation. We have chosen to test what would be the absolute and relative variation of the Gini index of disposable income in the absence of each of the types of benefits or taxes considered. This is the so-called "marginal contribution" approach, which some previous

OECD work has used. Its advantages are set out in more detail in our working paper. Nevertheless, the approach chosen implies a change of reference point, since in the previous section redistribution was related to primary income, not disposable income. Moreover, the method leads to redistributive impacts that are not strictly additive (with inter alia the existence of taxes on some benefits). It should also be borne in mind that there are potential substitution effects between tax expenditure (including tax credits) and social benefits.

### A decile analysis confirms France is targeting incomes close to the European median

Turning now to the targeting of redistribution, we have carried out an analysis of the size of direct taxes and social benefits as a percentage of the median primary income, for each primary income decile of individuals (see Figure 9). This confirms a fairly small deviation from the European median, with two very similar profiles across deciles.

Disentangling the respective contributions of social benefits and direct taxes to this overall result provides some additional elements of analysis (see Figures 10a and 10b). In particular, with regard to taxes, a regressivity appears between the last two deciles that is not observed for the European median. This result, despite the high targeting usually attributed to French income taxation (in the sole

sense of income tax), shows the need to analyse the redistribution system more in depth, going beyond the dichotomy between benefits and taxes.

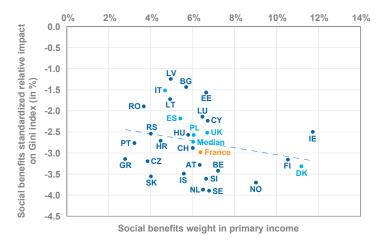
### Despite their lower volume, social benefits contribute a little more to redistribution than direct taxes

Given the differences in the order of magnitude between social cash benefits and direct taxes, one might think that the latter, which weigh 5.8 times more in France, play a stronger redistributive role. However, this is to forget that the fall in the Gini index associated with one euro of benefits is, everywhere, much larger than the fall associated with one euro of taxes. Indeed, benefits are by their nature targeted at their public and closely linked to redistribution, whereas taxes, although they are (generally) progressive, also aim to finance public policies, with a large base of contributing households. Thus, in France,

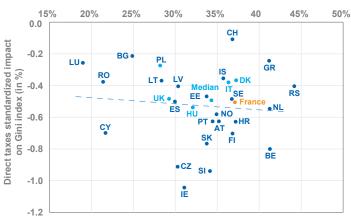


### Figure 11 – Targeting and amounts of redistribution

### A - Social cash benefits (excluding pensions)



#### B - Direct taxes



Direct taxes weight in primary income

Note: the further down a country, the more targeted its transfers, the further to the right a country, the larger the amounts transferred.

Reading: in France, where cash benefits excluding pensions amount to 6.4 pps of primary income, one pp in the form of benefits reduces the Gini index by 3.0%. For the European median, cash benefits excluding pensions amount to 6.0 pps of primary income and one pp in the form of benefits reduces the Gini index by 2.7%.

Source: EU SILC data and France Stratégie computations.

one euro of social benefits lowers the Gini index six times more than one euro of direct taxes (see Figure 11).

Stronger targeting of social benefits therefore outweighs, by a relatively small margin, the difference in volumes previously mentioned.

This is why, in France, direct taxes tend to reduce inequality a little less than social benefits (even though pensions and sickness benefits are here excluded - see Figure 12), while it is the opposite in southern, central and eastern Europe. Although proportions remain very similar in the French case (49%-51%), this situation gets somewhat closer to that in

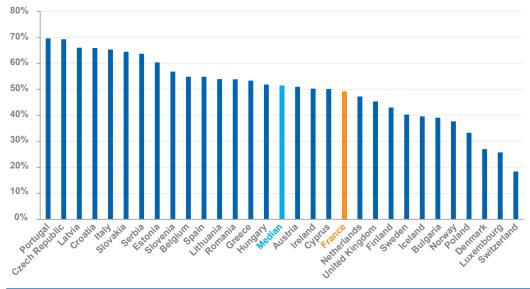
the Nordic countries, which is generally much more clear-cut (with even 73%-27% in Denmark, for example).

Rounding off, social benefits and direct taxes thus reduce inequality by 19% in each case.

Benefits redistribute mostly due to their volume in the fields of housing, unemployment and exclusion, through their targeting as regards family policy

The results computed on social benefits as a whole mask heterogeneous impacts. It is therefore appropriate to apply the dual analysis of volumes and targeting to each of the main types of benefits.

Figure 12 – Contribution of direct taxes to inequality reduction, in pps



Note: it is recalled that the remaining part of redistribution (beyond direct taxes) corresponds to cash benefits excluding pensions and sickness benefits.

Reading: in France, 49.0% of redistribution (as defined in this study and as measured by the Gini index) is attributable to direct taxes, compared with 51.4% for the European median.

Table 1 – Contributions to redistribution of the various social benefits

Relative	impact (	on dis	nosable	income	Gini	index

REDISTRIBUTION TOOLS	·	
	France	European median
Total of social benefits	19.0%	15.0%
Housing allowances	3.7%	0.3%
Unemployment and social exclusion benefits	7.9%	3.1%
Family benefits	4.0%	3.4%
Disability benefits	1.9%	5.0%
Others	1.5%	0.7%

Note: the "others" line includes scholarships, old-age minimum incomes and housing transfers in kind. Furthermore, it is recalled that the sum of the median values is not equal to the median value of the sum.

Reading: in France, housing allowances reduce the Gini index by 3.8%, versus 0.3% for the European median.

Source: EU SILC data and France Stratégie computations.

It appears that three main families of social benefits reduce inequality in France more than elsewhere (see Table 1).

First, benefits aiming to tackle unemployment and exclusion reduce inequality by 7.9%, well above the 3.1% observed for the European median. This can be explained by their very large volume (these benefits account for 2.9 pps of primary income, compared with 1.4 for the European median), which is only partially linked to the French unemployment level. Indeed, we have observed a broad decorrelation in Europe between unemployment rates and the redistribution associated with such benefits. Consequently, the amount of French transfers does not only result from the situation of the labour market, it also derives from the level and duration of benefits and the corresponding conditions of eligibility. Conversely, the targeting of these benefits appears to be slightly below the European average, even taking into account a lower concentration of unemployed people in the lowest income deciles in France. Both the size of the benefit volumes and the modesty of their targeting are partly due to the presence of a large insurance component.

Similarly, it is due to their very large volume that housing allowances reduce inequality much more in France (3.7%) than for the European median (0.3%). In fact, these allowances represent only 0.1 pps of primary income in the European median, far from the 1.1 pps reached in France. Their targeting also appears to be slightly below the European median, even more so if we take account of the fact that tenants seem to be more concentrated in the lower income deciles in France than for the European median. One may qualify this finding by including in the analysis benefits in kind associated with social housing tariffs, which leads to the identification of better targeting than in the European median. Nonetheless, this additional targeting disappears once the higher concentration of tenants at the bottom of the income scale is taken into account, with even a reversal: the difference with the European median in the share of benefits received by the first two income deciles remains lower than the over-representation of tenants in these same deciles.

Family benefits also contribute more to redistribution than elsewhere, reducing inequality by 4.0% (compared with 3.4% in the European median), even though they are less massive in France than for the median (1.6 pps of primary income instead of 1.9). For this third family of benefits, it is not the volume but the targeting that is comparatively much more important in France, where 1% of primary household income in the form of family benefits lowers the Gini index by 2.5%, instead of 1.95% for the European median. A study of the distribution of benefits per decile of primary income confirms there is a deliberate policy of targeting (resulting in particular from the degressivity of benefits with family income): French transfers are clearly more concentrated towards the bottom of the distribution than for the European median, even though it hardly includes more families with children than elsewhere.

Finally, in contrast to the social transfers previously studied, disability benefits reduce inequality in France much less than for the European median, despite relatively good targeting. Because their volume is more than three times lower than the median (0.5 pp of primary income instead of 1.8 pps), these benefits even have the lowest redistributive effect in Europe, 62% lower than the median (1.9% instead of 5.0%). This may partly result from significant substitution effects abroad between disability schemes and benefits associated with unemployment, exclusion or retirement, particularly in the many countries with higher average effective retirement ages.

### Direct taxes redistribute more in France than in the European median, but their targeting is hampered by the volume of contributions

The redistributive impact of direct taxes appears to be comparatively high in France since it is 11% higher than the European median. However, this figure remains lower than the 27% difference observed in the case of cash benefits. If we break down the impact of direct taxes, we can see that, in France, employers' social insurance contributions have an impact on inequality almost similar to that of other taxes on income (see Table 2), which is not the case for the European median.



Table 2 – Direct taxes contribution to redistribution in France

Polativo	impact on	disposable	incomo	Cini indov
Relative	impact on	disposable	income	Gini maex

REDISTRIBUTION TOOLS			
	France	European median	
Total of direct taxes	18.7%	16.3%	
Employer's social insurance contributions	9.9%	5.8%	
Other taxes on income	11.7%	13.0%	
Taxes on assets and wealth	0.2%	0.0%	

Note: as stated above, the different effects are not additive, given the existence of cross-effects

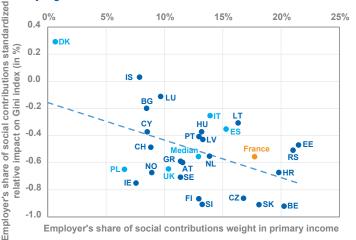
Reading: in France, employer's social insurance contributions reduce the Gini index by 9.9%, versus 5.8% for the European median.

Source: EU SILC data and France Stratégie computations.

Employers' social insurance contributions reduce inequality in France by 10%, versus only 6% for the European median, due to a very strong volume effect (see Figure 13): these contributions represent 17.7% of primary income in France, compared with 13.0% for the European median. On the other hand, their targeting is median; it certainly appears comparatively high if we focus solely on employees who do not earn high capital income, thereby getting closer to the basis on which these contributions are levied. Yet, even if we focus on persons in employment, these contributions contribute to the slight regressivity of French taxes at the top of the income distribution, already mentioned on the occasion of the analysis by decile. This is notably due to the existence of base ceilings (absent from income taxation as such).

Other taxes on income not only include personal income tax, but also the wage share of social insurance contributions, and - in the French case - other hardly progressive levies (such as the CSG), as well as the housing tax (which differs from the property tax paid by landlords).

Figure 13 – Targeting and amounts of redistribution, employers' social insurance contributions



Note: the further down a country, the more targeted its transfers, the further to the right a country, the larger the amounts transferred. There are data gaps in the case of Romania.

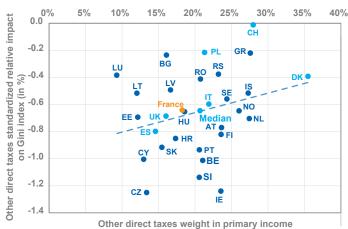
Reading: in France, where employers' social insurance contributions amount to 17.7 % of primary income, one pp in the form of such contributions reduces the Gini index by 0.56%. For the European median, these contributions represent 13,0 % of primary income and one pp in the form of such contributions reduces the Gini index by 0.55%.

Source: EU SILC data and France Stratégie computations.

Contrary to employers' social insurance contributions, these different taxes have altogether a lesser impact on inequality in France than elsewhere, with a reduction only amounting to 12%, a figure 10% below the European median. This again stems from a volume effect, lying this time below the median (see Figure 14).

This symmetry of the volume effects respectively observed for employers' social insurance contributions and other taxes on income is partly due to a substitution effect. Indeed, French trade-offs may differ from those of other European countries, both in terms of the respective weight of contributions and taxation as such, and, within contributions, in terms of the respective shares of employers and employees. The data used actually do not make it possible to distinguish, within 'other taxes on income', the employee's share of social insurance contributions. Still, a comparison of Figures 13 and 14 shows that, at least in the case of the employers' share, one euro of contributions redistributes 15% to 20% less than one euro of other taxes on income, both in France and in the European median.

Figure 14 – Targeting and amounts of redistribution, other taxes on income



Note: the further down a country, the more targeted its transfers, the further to the right a country, the larger the amounts transferred.

Reading: in France, where taxes on gross income amount to 18.2 pps of primary income, one pp in the form of such taxes reduces the Gini index by 0.64%. For the European median, taxes on gross income represent 20.7 pps of primary income and one pp in the form of such taxes reduces the Gini index by 0.65%.

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Thus, the weight of contributions (and of levies such as the CSG) within the French tax system implies a compositional effect reducing the overall targeting, which only barely exceeds the European median. Indeed, for one pp of primary income in the form of taxes on gross income, the Gini index falls by 0.505% in France, compared with 0.494% for the European median.

Admittedly, the impact of taxes on assets and wealth is in France much higher than the European median due to a taxation of wealth going beyond property taxes. The impact of such taxes remains nevertheless very small compared to that of other direct taxes.

### Box 4 – Comparison with a selection of European countries

Beyond the abstract notion of the European median, it may be instructive to set out more specifically some national cases, whether they correspond to our large neighbours (Italy, Spain, United Kingdom<sup>9</sup>), or are emblematic of a part of the continent (Denmark in the case of the Nordic countries, Poland in the case of the CEECs<sup>10</sup>).

### **Spain**

Primary inequality is 7% higher than the European median. Moreover, inequality reduction is lower, and mostly achieved through direct taxes. Social benefits reduce inequality in Spain by 21% less than the EU median due to lower targeting and volume. However, direct taxes are also less redistributive than the EU median (-8%), due in this case to lower volume and median targeting.

#### Italy

Primary inequality is 4% higher than the European median. Inequality reduction is lower, the reduction being achieved, as in Spain, mainly through direct taxes. Social benefits reduce inequality in Italy by 52% less than the EU median due to lower targeting and volume. However, direct taxes are also less redistributive than the EU median (-15%), as their higher volume does not compensate for poor targeting.

### **United Kingdom**

This other large neighbour has the highest primary inequality level in the group of countries included here, 14% higher than the European median. However, the country displays a median reduction in primary inequality, achieved mainly through social benefits. These reduce inequality in the United Kingdom by 13% more than the European median, their lesser targeting being more than

compensated by their volume. On the other hand, direct taxes are 13% less redistributive, due to a lower volume combined with median targeting.

Thus, Italy, Spain and the United Kingdom are all characterised by a higher level of primary inequality than in France, and less redistribution. Although both primary inequality and redistribution are higher in the United Kingdom than in Spain, the gaps being even higher with Italy, in all three cases inequality in disposable income proves higher than in France. Conversely, Denmark and Poland are both characterised by lower inequality in disposable income than in France, but this results from very different situations.

#### **Denmark**

Primary inequality is also higher (by 3%) than the European median, but inequality reduction is much stronger, mainly through social benefits. Social benefits reduce inequality by 148% more than the European median, due to higher targeting and volume. Conversely, direct taxes are 16% less redistributive, with a volume that is certainly higher than the European median, but associated with less targeting.

#### **Poland**

This last country displays a primary inequality level below the European median, with a significant gap of -12%. However, inequality reduction is lower, and is mostly achieved through social benefits. These reduce inequality by 4% more than the European median, due to slightly stronger targeting combined with a median volume. Conversely, direct taxes are less redistributive by 52%, due to their lower volume and targeting. The case of Poland, which is not unique in Europe, therefore recalls that lower inequality does not necessarily result from larger redistribution.

<sup>9.</sup> Limitation to this triptyque is due to the refusal of the national institute Destatis to communicate German data.

<sup>10.</sup> Sweden is by far the most populated Nordic country, but redistributes rather less than the group average; Denmark, which redistributes more, is identified in the public debate as the 'flexisecurity' country. As far as the Central and Eastern European Countries (CEECs) are concerned, Poland is by far the most populated, and occupies an intermediate position in this second group.



### CONCLUSION

France displays low post-redistribution inequality, both because primary inequality is relatively lower than elsewhere and because redistribution is relatively higher. This result is robust to the choice of including pensions in primary income or in redistribution. The work carried out therefore shows that the weight of our tax and benefits system does not result from a high level of primary inequality, but from a deliberate choice of fairly strong redistribution.

France stands out in particular for its highly redistributive social benefits, sometimes thanks to their volume, sometimes due to their targeting. The ranking of France compared to its neighbours is summarised in Table 3.

These findings naturally contribute to revive consideration of France's ability to improve redistributive performance further. As regards direct taxes, better targeting would consist in increasing the progressiveness of taxes on gross income: unlike taxes on wealth, their overall targeting is at best equal to the European median (the CSG, which applies to a broad base, is much less progressive than the income tax), and, unlike the employers' social insurance contributions, they have a redistributive purpose. On the social benefits side, housing allowances or benefits to tackle unemployment and social exclusion are today comparatively less targeted, partly because of the importance of the insurance component in the latter case. While there is thus room for manoeuvre to improve the 'redistributive performance' of our redistribution system, stronger targeting or progressivity is likely to face resistance, given the scale of the masses already redistributed.

The standard measure of income inequality, which our study (like many others) follows, does not allow for a complete analysis of redistribution. Indeed, it neglects the existence of non-monetary benefits (health, education), which are rather high in France. However, such transfers in kind also contribute to inequality reduction, as various French and European studies have established. Similarly, other forms of taxation not taken into account in the standard definition of disposable income, but comparatively quite high in France, can have a redistributive or anti-redistributive impact depending on the case: inheritance tax, indirect taxation (first and foremost VAT, or even environmental taxation).

Table 3 — Contributions to redistribution in France and the European median: total effects, volume effects and targeting effects

REDISTRIBUTION TOOLS	Relative impact on the Gini index of disposable income			
REDICTRIBUTION FOOLS	Total effect	Volume	Targeting	
TOTAL, EXCLUDING PENSIONS, OVERALL POPUL	ATION +	+	=	
Social benefits	+	+	+	
Housing allowances	++	++	-	
Unemployment and social exclusion benefits	++	++	-	
Family benefits	+	-	++	Note: the overall targeting of redistribution is not assessed here based on the methodology of part 3 but based on that of part 2 (see Figure
Disability benefits	-		+	7 and analyses by deciles). It is more sensitive to the median targeting of taxes than to that of
Direct taxes	+	+	=	benefits, the latter representing much smaller budgets.
Employers' social insurance contributions	++	++	=	Reading: a "+" means a positive deviation from the European median, a "-" a negative deviation from the European median and a "=" $^{-}$ "
Other taxes on income	-	-	=	a relatively comparable situation. Two "+" or "-" correspond to a more pronounced gap.
Taxes on assets and wealth	++	++	++	Source: EU SILC data and France Stratégie computations.

This study obviously should be read against the backdrop of the unprecedented health crisis we are going through. Up to now, the response to the economic consequences of this crisis has mainly aimed to preserve labour income in the short term and thus to prevent the increase in inequality before redistribution. However, at the – still unknown – date of emergence from the crisis, it will be important to have a precise and accurate diagnosis regarding both primary inequality and redistribution, in order to better calibrate measures needed to ensure at the same time financing of public budgets and support to the poorest. In that regard, financing additional expenditure without increasing inequality could involve refocusing certain benefits and increasing the progressiveness of some taxes, since the health crisis has also shown the broader importance of public services and certain universal benefits.

However, the response to the economic and social consequences of the crisis could also involve revisiting value-sharing mechanisms before redistribution, within the framework of the labour market and its organisation by the public authorities and social partners, in order to act on primary inequality. It should also involve an even more upstream and longer-term level of action on inequality, that of promoting equal opportunities, particularly in access to employment, by resorting to various public policies, including education and training. Indeed, redistributive expenditure in the strict sense, and more generally social expenditure, is very often part of a "curative" logic, the need for which in the short term should not overshadow the need for a more emancipatory logic of social investment in the long term.

Keywords: income inequality, primary income, redistribution, tax, social benefits, pensions, Europe





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