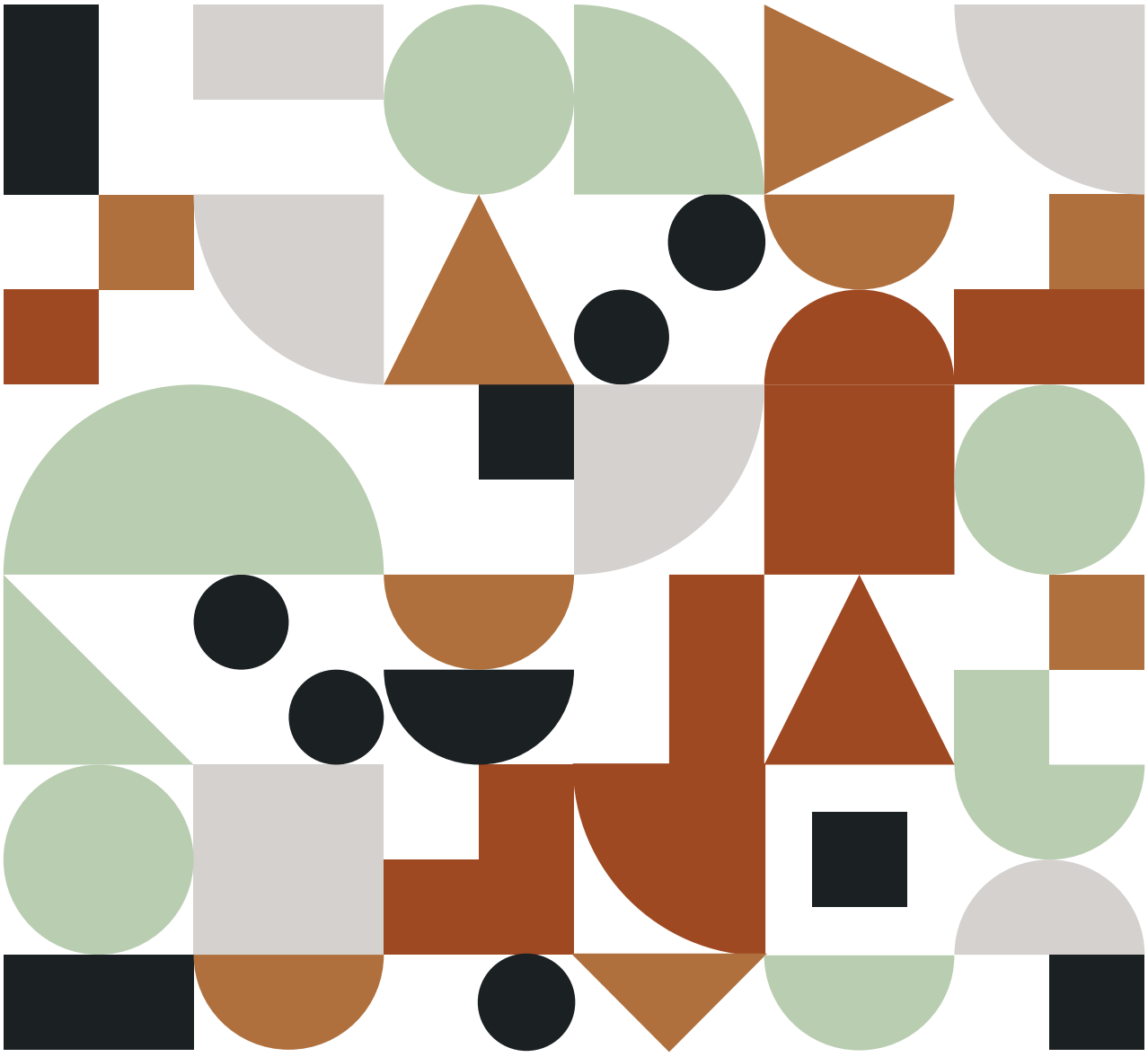
Forging an Economy for Tomorrow



WORKING PAPER - SEPTEMBER 2021

groupe d'études geopolitiques

groupe d'études
geopolitiques

Forging an Economy for Tomorrow

AUTHORS
OLIVIER BLANCHARD, JEAN TIROLE

WORKING PAPER - SEPTEMBER 2021

45, RUE D'ULM 75005 PARIS
LEGRANDCONTINENT.EU
GEG@ENS.FR

REFERENCES
OLIVIER BLANCHARD, JEAN TIROLE, FORGING AN ECONOMY FOR TOMORROW, GROUPE D'ÉTUDES GÉOPOLITIQUES, WORKING PAPER, SEPTEMBER 2021.

Forging an Economy for Tomorrow

OLIVIER BLANCHARD • SOLOW PROFESSOR EMERITUS MIT, BERGSTEN SENIOR FELLOW, PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

JEAN TIROLE • RECIPIENT OF THE NOBEL MEMORIAL PRIZE IN ECONOMIC SCIENCES, HONORARY PRESIDENT OF TOULOUSE SCHOOL OF ECONOMICS

The global economy is facing numerous challenges which are not just related to the shock of the pandemic[1], but also to broader and deeper changes which, with or without the crisis, have had and will continue to have lasting effects. Now more than ever there is an urgent need to bring about multiple reforms in France and Europe as a whole in order to build the economy of tomorrow.

Within the international commission that we presided over, and which led to the publication of a report this past June[2], a consensus around three key themes emerged. This is a point that is worth emphasizing as this commission brought together French, European, and American economists of varying viewpoints. The first theme concerns the existential threat posed by climate change and the measures we must take to respond to it. The second theme relates to economic inequalities and insecurity, with the goal of building an inclusive economy. The third theme has to do with demographic changes, particularly aging populations which will require a number of adaptations.

For each of these themes we have created a synthesis of what we know and what we do not. From there, we have inferred the implications in terms of appropriate economic policies. When discussing these reforms, we paid particular attention to perception and potential opposition as well as how to address them. This seems to us to be necessary if we want these often-necessary reforms to be widely accepted and successful.

Climate and environment

It is a fact that climate change is an absolute emergency. The most recent IPCC report, published August 9th, confirms this: emissions of CO2 and other greenhouse gases are having serious negative impacts on the climate and global temperatures could rise by 1.5°C in the next twenty years compared to pre-industrial levels. The magnitude of this global warming could cause "unprecedented" extreme meteorological events. Time is running out to take action and the longer we wait, the more expensive any mitigation or adaptation measures will become. This emergency is considered as such by the majority of French and European citizens. More than 90% of French citizens believe that climate change is caused by human activity and that as a result, it can be brought under control. At the European level, 93% of citizens consider climate change to be a

1 — Olivier Blanchard, La crise économique du Covid-19, Le Grand Continent, 23 September 2020.

2 — Les grands défis économiques, France Stratégie, June 2021.

serious problem[3].

However, when we venture into the realm of ecological policy and the measures put in place to mitigate the consequences of climate change, perceptions diverge and are not necessarily in line with reality. A number of measures are incorrectly perceived, which either impede or facilitate their implementation: measures with a "visible" impact – carbon taxes are a good example – are much less popular than those measures whose impacts are "invisible" – such as bans, renewable energy subsidies, or new regulations – even though the latter are potentially much more costly.

Based on the objectives set at the European level – reducing emissions by 55% by 2030 compared to 1990 levels and reaching carbon neutrality by 2050 – and taking into account the target of +2°C as a given, our commission's challenge was two-fold: to propose solutions aimed at bridging the gap between words and actions and to ensure the political acceptability of expensive measures while still keeping their costs as low as possible. Our first proposal is universal carbon pricing which would encompass sectors that currently benefit from exemptions. This carbon pricing would be accompanied by a carbon border adjustment to avoid environmental dumping. Secondly, we believe it is essential to increase investments in research and development along with the creation of two institutions at European level to ensure good governance. Third, these measures could be accompanied by a series of bans and regulations which should be evaluated according to the implicit cost in terms of CO2 emissions avoided. Finally, if France is to have substantial influence on climate, it will only be effective at the European level, which is the relevant level to create effective climate policy capable of setting the course at the international level.

Carbon pricing as a means for a fair and effective transition

Despite its lack of popularity, a universal and redistributive higher carbon price, reflective of the urgency and magnitude of climate challenge, is indispensable. This measure has at least four advantages: it pushes those who can eliminate their pollution at a relatively low cost to action, stimulates green innovation, and simplifies decision-making made by the State and economic actors by ensuring that emissions are measured. In addition, this does not imply large public expenditures. On the contrary, it raises revenue which could be redistributed to the most vulnerable households. Whether in the United Kingdom or Sweden, it has proven to be effective.

Let us briefly look at how it works. Governments set a "carbon budget", which corresponds to the volume of emissions which can still be generated without going over the limits laid out in the Paris Agreement. The price of carbon is then set by the market equilibrium. At the same time, in order to respond to uncertainties – such as the emergence and cost of green technologies or political and geopolitical obstacles – the carbon budget would have to be revised over time. This could mean great uncertainty in terms of price for economic actors who must make long-term decisions today. To reduce this risk, we propose guaranteeing a certain stability in the price of carbon emissions by setting a floor and a ceiling. In order to avoid the effects of lobbying, we also suggest

3 — Special Eurobarometer 513 Climate Report, European Commission 2021.

creating a Central Carbon Bank that would be independently governed and responsible for deciding how emissions should be regulated over time in accordance with its political mandate.

The "Fit for 55" package presented by the European Commission in July is ambitious – a 55% reduction in emissions compared to 1990 levels by 2030, meaning tomorrow – and addresses most of the questions in our report, particularly the matter of border carbon adjustment, the revision of the EU Emissions Trading System (EU ETS) as well as the Social Climate Fund. What follows are some comments on this matter.

First of all, the inclusion of the building and transport sectors (which are responsible for 57% of European emissions) is, in and of itself, good news. While it does not satisfy the purists (there is no economic reason to create a parallel ETS system to lower prices), many have spoken out against including these two sectors in the carbon pricing system. We believe this is the wrong approach. While we share concerns about the social impact of including them, we must distinguish between the two sides: on the one hand proclaiming loud and clear support for carbon pricing in these sectors (the absence of pricing has meant that no progress has been made on buildings and transport emissions have increased while emissions in the electric sector, which is subject to the ETS, have decreased); on the other hand, expressing concern about the distributive aspects and supporting the Commission in the negotiation of the expected compensation for the next two years (the figure of 25% of revenue allocated to the Social Climate Fund, however, seems to fall short of what is at stake.)

The other key measures of "Fit for 55" are border adjustments – which we also recommend in our report – and ending sales of automobiles using fossil fuels in 2035-2040 (rather late since a large number will last until 2050-2060). Among the recommendations in our report are the establishment of two independent European bodies with good governance; one would focus on cutting-edge research and the other on evaluating the comparative effectiveness of policies geared at fighting climate change. This remains to be elaborated on.

Carbon pricing (whether direct as is the case of a carbon tax, or indirect as is the case when including a sector in the ETS) is regressive – as are many other green subsidies (rooftop solar panels, electric cars, energy-efficient renovation). A large part of the revenue generated by carbon pricing must be explicitly allocated to offsetting processes, not only for equity but also for economic policy reasons.

At the same time, this redistribution must be carried out both within individual countries as well as between them. For example, it is imperative that Polish and German coal production, which does not cost much in terms of reducing CO2, end immediately; but Europe must properly compensate miners in these countries.

Intensifying R&D efforts

At present, investment in green R&D is insufficient to limit climate change. Drawing inspiration from the successful, rapid development of mRNA messenger vaccines, we recommend setting realistic technological goals for the private sector. We propose the creation of an EU ARPA-E which would finance high risk, high potential research and development projects. To ensure transparent governance, following the ARPA-E model, a scientist respected for his or her

research and managerial capabilities as well as operational flexibility, would be named to oversee the allocation of funds and guarantee the institution's independence from interest groups and politics. Several European-level projects which have proven successful seem to have anticipated this type of cooperation between the public and private sector.

In terms of establishing investment priorities, we feel it is appropriate, without wishing to substitute ourselves for the decisions of such an agency, to further invest in technologies that will eventually make fossil fuels obsolete (renewable energies and batteries, which are inexpensive) by privileging technologies with low ecological impact (for example, the use of rare metals) with the aim of rapid world-wide adoption. As for nuclear power, if our commission has not taken a position on neither the advisability of building new plants (as in the United Kingdom or in Poland), nor on the specific nuclear technology that should be used in such cases, we deem it essential to keep existing plants in operation (in accordance with principles of safety) which currently provide three-quarters of all electrical production in France and 25% of total production in the European Union. Although the inclusion of nuclear power in the European Union's green taxonomy divides member states, we believe it is extremely important to recognize nuclear energy, hydroelectricity, and biofuels as the only viable sources of decarbonized electricity in the absence of mature technologies for electricity storage.

Standards and bans

We believe that carbon pricing will not be sufficient by itself (too low price, imperfect information for consumers). So, we propose that these measures should be accompanied by standards and bans, following the bans on single use plastic bags, or even forbidding the sale or registration of new vehicles which use certain fuel types from a certain date onwards. As long as the costs are reasonable and the overall strategy is coherent (bans, standards, and subsidies will need to be evaluated with a rough estimate of their underlying cost per ton eliminated), we believe that these instruments should be part of an ideal package.

While our report did not aim to study all environmental measures in detail, as a general rule we recommend that each sector-specific measure be subject to a cost-benefit analysis, based on an estimate of the cost per ton of CO2 not emitted, as well as its social and environmental cost. In this respect, we believe that, given its very low cost per ton of CO2 not emitted, replacing coal with natural gas is a lesser evil, while at the same time avoiding the construction of new power plants in order to avoid the lock-in effect, even though gas currently represents almost 20% of the European electricity mix. The switch from natural gas will have to take place at a later date.

There are two ways to reduce our GHG emissions: one is to use cleaner energy, the other is to use less energy. No one can say what the ideal mix is between the two. The beauty of the carbon pricing mechanism, however, is that we don't have to favor one approach over the other; savings will be made where they are least costly.

We must emphasize the notion of cost, however. We do not believe in the concept of «green growth», which implies that we can have our cake and eat it too. If that were the case, why wouldn't we have done so over the last 30 years? In order for things to advance, there must be the political courage to

accept that there is a cost. Once this notion is accepted, it is easier to adopt the appropriate policies.

The European scale

Europe, not just France, is the right scale for action, and European commitment to fighting climate change could have a real impact at the international level. By outlining a border carbon adjustment mechanism in the «Fit for 55» package, which would both ensure fair competition between national companies and importers in terms of carbon prices and encourage reluctant countries to make commitments, the Union has demonstrated its willingness to go beyond «setting an example». Furthermore, by engaging in green R&D, Europe could play a key role in the ecological transition of poor countries.

Inequalities and redistribution

According to traditional indicators, inequality in France is no worse than anywhere else. Based on these indicators, France does better than many European countries and much better than the United States: at 32%, the share of income going to the top 10% of earners is lower than in the United Kingdom (35%), Germany (37%), and the United States (45%). Trends over the past few decades have also been much less unfavorable than in other countries, particularly the United States. However, apart from these traditional indicators and other international comparisons, the majority of French people feel that they live in a society which is too unequal[4]. This perception is largely true: France is still a poor performer in terms of equal opportunity, access to quality education, access to a decent job, and social mobility. We have chosen to focus on these areas in order to propose solutions to reduce inequalities.

We propose a three-pronged approach to addressing inequality on several fronts: before production, in order to increase equal opportunities at the beginning of life; during production, in order to direct it towards more high-quality jobs; and finally, after production, with classic redistribution measures to protect those who have not fared as well.

Before production, reducing unequal opportunities

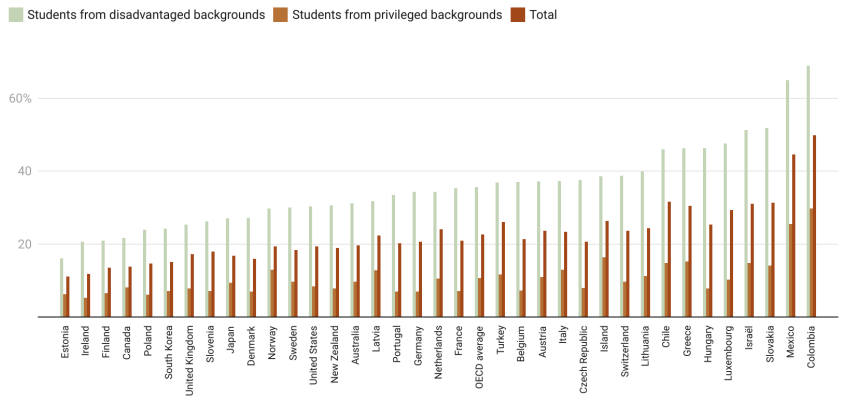
In order to reduce unequal opportunities, we must act on two fronts: education and wealth.

The French education system remains highly unequal. Throughout the world, social status is the leading factor in determining educational attainment. However, as the OECD shows, this is particularly pronounced in France. Once again, a comparison with other European countries is revealing: when asked whether all students have the same chances of attending university, only 44% of French respondents agreed. This is the lowest percentage among seven countries surveyed – in Italy the positive response rate was 49%, and in Germany it was 70%. The reforms carried out over the past few years to invest more in the most disadvantaged areas (ZEP, REP) have had positive results. In keeping with

4 — According to a survey conducted by the Commission, 73% of respondents consider income inequality in France as a serious or very serious problem, 62% for wealth inequality.

this logic, we must now do and invest (much) more.

SHARE OF 15-YEAR-OLD STUDENTS WHO DIDN'T ATTAIN THE BASIC LEVEL OF LITERACY IN READING, BY SOCIAL BACKGROUND IN 2018



On average in the OECD countries in 2018, 23% of 15-year-olds did not reach the basic level of literacy in reading. This is the case for 36% of pupils from disadvantaged households and 11% of pupils from privileged households.

Chart: Le Grand Continent • Source: OCDE, Pisa 2018

Figure 1 — Share of 15-year-old students who didn't attain the basic level of literacy in reading, by social background in 2018

In regard to wealth, the equation is simple: some people start off life with a lot, many others start with nothing. In this light, we see an inheritance tax as the best tool to reduce the differences that many start with, as part of a more egalitarian social contract.

Perceptions regarding inheritance taxes are contradictory and understandable: on the one hand, the French believe that they should have the right to bequeath « hard-earned « wealth; on the other hand, they find it difficult to accept that not everyone starts off equal and consider this unjust. France finds itself in a contradictory situation. Among OECD countries, it has relatively high inheritance tax rates, but at the same time a relatively poor redistribution of wealth. The measure we are proposing for a fairer inheritance tax is primarily based on one principle: base the tax on the beneficiary and not on the donor by taking into account all gifts received during the donor's lifetime to calculate the tax, and by taxing these gifts only above a relatively high threshold. A reversal of the high level of tax exemptions and avoidance opportunities that benefit only the wealthiest taxpayers is also needed. To increase this historically unpopular tax's acceptance, we believe it is desirable to break with the principles of public finance and explicitly earmark the revenue from this tax to support disadvantaged youth in the form of programs targeting all aspects of equal opportunity. These could take the form of education credits: for example, Norwegian students receive a monthly loan of €1,050 whose repayment is linked to future income, good academic performance, and the length of time they have been in school. Conditional use of resources is necessary to achieve the goal of equal life opportunities.

Following production, classic redistribution measures

Rethinking the entire tax system would have been too ambitious a task for this report. We have chosen to focus on just a few issues that we believe should receive particular attention in future thinking and research.

First of all, the taxation of capital must be reconsidered. Capital has always been a more mobile element than labor. Traditional common sense regarding taxation, which requires taxing the least mobile elements and those least likely to leave the country, has resulted in a much higher taxation of labor than of capital. There is now a need to restore a better balance, particularly as the tax

elasticity of capital and its international mobility are likely to decrease. The OECD agreement on a minimum tax rate for multinationals and the movement of the international community towards greater tax standardization are steps in the right direction.

Secondly, the issue of effective tax collection by States must seriously be addressed. On this matter, we recommend paying particular attention to the development of artificial intelligence and rethinking its use by tax authorities as AI could be a decisive tool for improving tax control by preventing fraud and allowing the State to collect all the tax revenue it is owed.

During production, the question of job quality

Workers want quality jobs. According to available surveys, this not only means good pay, but also opportunities for advancement, responsibility, job security, and a decent working environment. According to these same surveys, workers see globalization, free trade, and technological change as threats, and they fear that many of these quality jobs are disappearing. This problem must be faced head-on.

A number of traditional measures are known to be effective, but they are often lacking or insufficient. Lifelong professional training is essential, especially, but not exclusively, to avoid the devastating and well-documented effects of the loss of job opportunities for disadvantaged populations. We believe that professional training is just as important as the education one initially receives. The reforms currently being undertaken – establishing the Personal Training Account (PTA) and creating a new structure to certify training and better disseminate information – are an important first step.

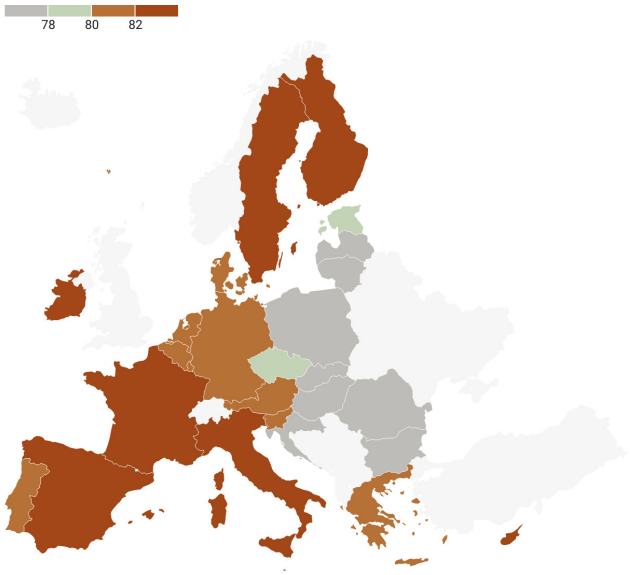
We believe, however, that it is necessary to go beyond these training and adaptation measures by acting directly on the distribution and nature of the jobs offered by companies. Indeed, technological choices and the internal organization of companies are largely driven by the company itself. Whether for companies or for R&D, the choice to develop or use technologies that improve existing jobs or, conversely, eliminate them, is an economic choice which depends on price factors, regulations, tax incentives, etc.

It is therefore possible to influence them. Conventional incentives can be used, such as those that reduce the relative price of labor compared to capital, those that act on labour law conditions, or incentives in the form of bonuses and penalties on the hiring policy of companies. In more general terms, closer and more proactive collaboration between companies, workers, and public authorities on how to create good jobs and good career paths strikes us as essential; the experience of other countries suggests that real progress can be made. For France specifically, this implies greater integration and cooperation between Pôle Emploi, France Compétences, and a certain number of companies themselves.

Demographics, aging, and retirements

The third section of this report focuses on demographics, with a particular emphasis on the issue of aging populations and their impact on work and retirement for seniors.

AVERAGE LIFE EXPECTANCY AT BIRTH IN THE EU MEMBER STATES IN 2020

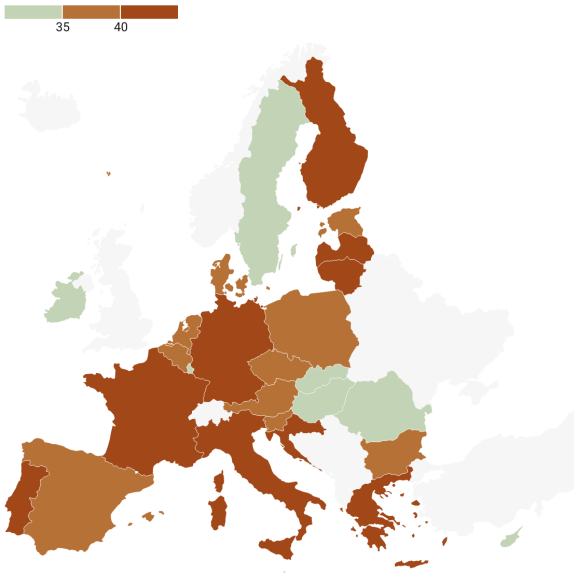


Data are estimates. Data for Ireland are for 2019.
Map: Olivier Lenoir / Le Grand Continent • Source: Eurostat

Figure 2 — Average life expectancy in the European Union in 2020

First of all, we should point out that population aging in France is good news. It is primarily the result of longer life expectancy (82.3 years in 2020) along with better health among the elderly. Population aging in France is therefore not explained by a low fertility rate. In 2019, the fertility rate reached 1.86 children per woman, the highest in the Union, whereas in Mediterranean countries it has remained at low levels (1.23 in Spain and 1.27 in Italy). The fact remains that population aging is going to increase, that it is not without consequences, and that the right adjustments must be made to respond to it.

THE OLD-AGE DEPENDENCY RATIO IN 2030 (ESTIMATES)



The estimates were done in 2019.
Map: Olivier Lenoir / Le Grand Continent • Source: Eurostat

Figure 3 — Population aging in the European Union

Here again, we suggest several reforms. On the one hand, we propose pension reform towards a points-based system characterized by transparency, fairness, and sustainability - not just simple parametric reforms. On the other hand, we believe that reform will only be successful if it increases both the supply of and demand for work by senior citizens, thanks to prevention of and adaptation to chronic illnesses, the introduction of more flexible work schedules, increased availability of part-time work, and the strengthening of professional training

for senior citizens.

A points-based retirement system: transparency and equity

We have made two observations about the existing pension system. The first is that it is not very transparent, it is often unequal, and it is difficult to understand by those who contribute to it. The second is that the mechanisms for adjusting the system to demographic changes are far from being ideal for solving the issue of the pension system's sustainability. We believe that in both respects, we can do better.

When it comes to transparency, we propose moving to a points-based retirement system. Each worker would accumulate points over the course of his or her career. Each point is defined as a percentage of the average wage each year. Someone who earns the average wage has one point, someone who earns twice the average wage has two points, etc. When the worker wishes to retire, the points are converted into a pension based on a point value, a value that increases each year with the average wage and is adjusted for demographic changes if necessary (more details below).

With respect to the retirement age, we support a clearly defined minimum retirement age for all employees - which may be adapted to the difficulty of the work, as described below - which would effectively eliminate the controversial idea of «âge pivot». Of course, those who wish to work longer must be allowed to do so and therefore receive a higher monthly pension. We propose that if a worker retires later, the increase in his or her pension should reflect both the additional contributions as well as the decrease in the number of years remaining and should therefore be neutral from the point of view of the system's financial balance.

For reasons of fairness, the reform must also take into account individual differences in workers' careers.

The first adjustment we are proposing is for workers who have had low wages or a disrupted career. In the same spirit as the current system, we propose additional points for periods of time when people were unable to work, particularly during maternity leave and periods of unemployment. We also propose a transparent redistribution system, with extra points for workers in the bottom three or four earnings brackets.

The reform must also take into account varying degrees of job difficulty. Although it is not as easy to measure objectively, these difficulties are nevertheless very real. We believe, however, that it is up to social partners, outside the overall system, to define the adjustments to be made for each job in relation to difficulty, as well as assuming responsibility for the additional costs generated by these adjustments. This measure, which places greater responsibility on industries and companies, has been successful in the Netherlands in the area of disability insurance.

Finally, we would like to point out that there are considerable differences in life expectancy at any given age between different social groups, especially between the rich and the poor. However, our commission did not reach a consensus on whether or not differences in minimum retirement age based on lifetime income, for example, were justified. While some of us favored such differences, others thought that a uniform minimum age plays a critical role in

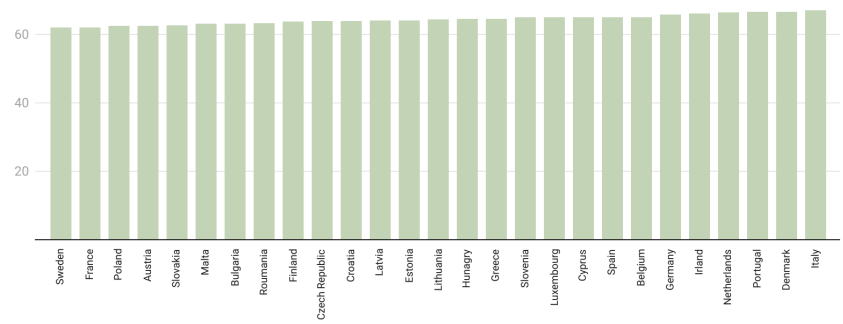
setting standards, and that the measures we discussed above were sufficient. Therefore, the matter remains unresolved.

How can the financial stability of the system be ensured?

Each year in France, the Conseil d'orientation des retraites (COR) issues an opinion on the state of the pension system. In 2021, it concluded that the French pension system is financially sustainable. However, we believe that the conclusions reached by the COR are optimistic and, more to the point, that the adjustment mechanism of the current system is not the right one. The stability of the current system, in which contributions are indexed to wage trends and pensions are indexed to price trends, is effectively based on productivity trends - which determine the difference between the two. This means leaving the adjustment - which has significant human consequences - at the mercy of a random variable that is difficult to predict. We do not find this desirable.

We are therefore in favor of indexing pensions to average wages - and no longer on prices. The de facto indexation of contributions, as well as of pensions, to average wages eliminates the problem of the current system's dependence on the evolution of productivity. That being said, given the increase in life expectancy and therefore the proportion of pensioners to contributors, another adjustment process must be found. From an accounting perspective, there are three solutions: increase contributions, increase the minimum retirement age, or decrease pensions. Pensions in France are currently around 15% of GDP as of 2020 according to the Commission's projections. Only Italy has a higher proportion (15.6 %), but this is due to a much older population. Given the high cost of contributions in France, we therefore believe that the choice is between the latter two options.

LEGAL RETIREMENT AGE IN THE EU COUNTRIES



This represents the legal retirement age, not the actual average age. Where several ages exist (e.g. by gender), an average is provided. These ages do not include other conditions (e.g. length of contribution) that may be necessary for the payment of pensions. Finally, Sweden has a so-called "flexible retirement", which allows for a higher retirement pension when retirement is taken after the statutory retirement age of 62.

Chart: Le Grand Continent • Source: CLEISS

Figure 4 — Retirement age in the European Union

The choice is therefore as follows: on one extreme, the retirement age can be maintained, but this leads to a lower point value and therefore less generous pensions; at the other extreme, the retirement age can be increased in proportion to the increase in life expectancy, so as to keep the same proportion of contributors and retirees, and the point value can be maintained (and guarantee an increase in pensions in line with the average wage); or of course, and most likely, a solution can be found in between these two extremes.

We believe that this is a fundamental choice that must be made in a transparent and democratic way. We are in favor of an independent body that would clarify the nature of the choice and, once the choice has been made, implement it. We have not taken a position on the exact form of the democratic process to make

this choice.

Lastly, we recommend the phasing out of special pension programs and a move towards a uniform general system over a fifteen-year period, which seems reasonable to us.

The increased supply and demand for older workers

Pension reform will not succeed if companies do not want to retain or hire older workers, or if older workers themselves do not want to work longer. Many retirees would like to continue working to supplement their income or maintain social ties and activity but want more flexible forms of employment.

On the demand side, flexibility must therefore be central to reform. Opportunities for part-time work and professional training adapted to older workers must be explored. Any regulation that puts older workers at a disadvantage compared to younger workers must be revisited.

On the supply side, there is an urgent need to better treat chronic diseases, which affect one third of the French population (20 million people). We must be proactive, by raising awareness among workers and employers about health and wellness long before an illness is discovered. We must also respond afterwards, by making it possible to adapt working hours and conditions to chronic illnesses in certain older people, and by providing compensation for disability in such a way as to enable individuals to remain employed. In this regard, telemedicine, which took off during the pandemic, can be very useful in supporting workers with chronic diseases, particularly in medical deserts.