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ALBERTO MAJOCCHI

**CARBON PRICING, NEXT GENERATION EU
AND THE ROLE OF CITIES**

A FEDERAL STRUCTURE FOR EUROPEAN TAXATION

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ABSTRACT

The pursuit of the goal of carbon neutrality requires the introduction of a carbon pricing policy applied to all sectors, that also provides for a minimum price for fossil fuels and a border tax adjustment on imported goods.

Following the decision of the European Council to issue bonds guaranteed by the European budget, to finance the *Next Generation EU*, the recent inter-institutional agreement on multiannual budget provides for a precise sequence of deadlines for the progressive introduction – according to a predefined schedule – of new own resources. It is indeed a crucial step towards the acknowledgement of a fiscal capacity of the Union.

In the implementation of the *Next Generation EU*, the use of a relevant share of the available resources requires an intervention by the cities. In order to support the investments that have to be made at the local level, reforms of the taxation structure need to be initiated, in a fiscal federalism perspective, that provides for coordination between different government levels, with the definition of decision-making mechanisms for the allocation of resources, within the framework of a reform of federal institutions.

Keywords: Carbon pricing, Next Generation EU, cities, federal structure, European taxation

Alberto Majocchi is Emeritus Professor of Public Finance, University of Pavia, and Vice-President of the Centro Studi sul Federalismo, Turin

E-mail: alberto.majocchi@unipv.it

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1. *Climate change and carbon price*

The McKinsey report *Net-Zero Europe. Decarbonization Pathways and Socioeconomic Implications* (December 3, 2020) estimated that “reaching net-zero would require investing a total of €28 trillion in clean technologies and techniques over the next three decades. This would comprise €23 trillion (an average of €800 billion per year) of funds that would otherwise be invested in existing technologies and €5.4 trillion (an average of €180 billion per year) of additional capital outlay”. Beyond the validity of these estimates, it is worth noting that the largest share of investments to be made by 2050 should be covered by a shift of resources from investments in traditional fossil fuel production sectors to new green technologies. This is about €800 billion per year, a considerable amount, roughly equal to the size of Next Generation EU.¹ The point to note about this resource shift is that it would take place through market mechanisms, and is therefore conditional on a fundamental pre-requisite being met, namely that investment in renewables is cheaper over time than producing or importing fossil fuels.

Economists have long held the view that carbon pricing is the main instrument for promoting this shift of resources, whose role was also recently underlined by the President of the European Central Bank Christine Lagarde.² After noting that there are increasing signs of pressure to promote robust measures to combat climate change, especially in Europe, Lagarde remarked that “the first dimension along which we expect rapid progress is including the true social and environmental cost of carbon into the prices paid by all sectors of the economy”, and indicated the instruments to be adopted: “Appropriate pricing can come via direct carbon taxes or through comprehensive cap and trade schemes. Both are used to some extent in the EU. It is likely,

¹ According to a recent Policy Study of the European Green Deal (EGD), (R. Wildauer S. Leitch, J. Kapeller, *How to boost the European Green Deal’s scale and ambition*, Institut für Sozioökonomie, Universität Duisburg, Expertise 2020 no.8, (www.de/soziooekonomie/expertise/imperia/md/content/soziooekonomie/fsoexp8_wlk2020_greennewdeal.pdf))

“increasing energy efficiency renovation of buildings alone is likely to require annual investments of € 490 billion; scaling up Research and Development (R&D) investment to 3% or 4% of GDP in the EU27 requires additional annual investments of between € 75 and € 200 billion. Taken together, this suggests that annual investment requirements of up to € 855 billion (excluding transport) in the EU27 would be required for a successful transition [to carbon neutrality]”

² *Climate change and central banking*, Keynote speech by Christine Lagarde, President of the ECB, at the ILF Conference on Green Banking and Green Central Banking, Frankfurt am Main, 25 January 2021

though, that the next steps in Europe will come mainly via the EU's Emissions Trading System (ETS), a cap and trade scheme. It currently covers only around half of EU greenhouse gas emissions and a significant amount of allowances continue to be given for free. The effective price of carbon is expected to rise if the EU's targets for reducing emissions are to be reached. Modelling by the OECD and the European Commission suggests that an effective carbon price between €40-60 is currently needed."

On this point, the McKinsey Report noted that "tax credits and subsidies tend to work best for accelerating an active market, such as increasing building insulation and industry efficiency efforts. Grants are often required for funding R&D projects that generate no short-term revenues. Loans and loan guarantees tend to work best when they target a few beneficiaries because of their higher administrative costs." However, carbon pricing plays an important role as a complement to the functioning of market forces. "Carbon prices could increase the mobilization of private capital, as increasing the carbon price would make more investment cases positive. We estimate that at a carbon price of €50 per tCO₂, an additional 21 percent of capital required through 2050 could be unlocked on top of the 40 percent that already has a positive investment case. A carbon price of €100 per tCO₂ could unlock another 10 percent of capital requirements giving more than 85 percent of the required capital a standalone business case (14% is infrastructure). The remainder would require carbon prices of over €100 per tCO₂."

The proposal of a European Citizens' Initiative³ (ECI) suggests that the carbon price should be initially set at €50 per tCO₂ emitted, to be gradually increased to the level necessary to set the European economy on a path towards an effective reduction of polluting emissions (e.g. €100 within five years). A 2017 Report of the High Level Commission on Carbon Pricing⁴ concluded that "... the explicit carbon-price level consistent with achieving the Paris temperature target is at least US\$40-80 by 2020 and US\$50-100 by 2030, provided a supportive policy-environment is in place...". These prices, at the current exchange rate, are equivalent to a minimum of between €32.5 and €65.0 in 2020 and between €40.7 and €81.3 in 2030. A rate of €50, progressing towards €100 in five years, therefore falls within the average of this range.

This assessment of the optimal level of carbon pricing appears to attract a broad consensus. Theoretically, the price of carbon should be commensurate with the social costs of carbon emissions. But the social cost of carbon, which had been estimated at \$37 per tonne, has recently been reassessed at \$220 per tonne.⁵ The Report of the Commission chaired by Alain Quinet,⁶ prepared on behalf of the French government, came close to this figure, as it predicted that a

³ www.stopglobalwarming.eu

⁴ *Report of the High Level Commission on Carbon Pricing*, (www.carbonpricingleadership.org), pubblicato nel 2017 da un gruppo di esperti presieduto da JE Stiglitz e N. Stern per conto di Ségolène Royal e Feike Sijbesma, copresidenti della *Carbon Pricing Leadership Coalition High Level Assembly*. This assessment has recently been reaffirmed: "the likely SCC would be closer to \$100 per ton by 2030 than the \$50 per ton estimated by the Obama administration" (N. Stern, J.E. Stiglitz, *Getting the Social Cost of Carbon Right*, "Project Syndicate", Feb 15, 2021)

⁵ F.C. Moore-D.B. Diaz, *Temperature impacts on economic growth warrant stringent mitigation policy*, "Nature Climate Change", no. 5, 2015, pp. 127-131

⁶ *La valeur de l'action pour le climat. Compléments*, Rapport de la commission présidée par Alain Quinet, France Stratégie, Février 2019

cost of €250 per tCO₂ could be reached in 2030, and that this figure is expected to rise further until 2050.

The impact of a high carbon price on economic activity “depends on the availability of alternative green technologies. In the past, a sudden and substantial increase in carbon taxes could have resulted in an economic downturn, substantial stranded assets and threats to financial stability. Today, however, solar power is not only consistently cheaper than new coal or gas-fired plants in most countries, but it also offers some of the lowest cost electricity ever seen. Green finance and innovation are also developing rapidly. Introducing well-signaled carbon pricing therefore becomes more feasible and could further sharpen incentives both to develop new technologies and to carry out the substantial investment required for the widespread adoption of the green technologies that already exist.”⁷

2. Carbon dividend and tax reform

“The twentieth century was the century of oil and the dollar: both marked the dominance of the United States after the Second World War. (. . .) Oil and the dollar, together, see the downsizing of their global role in the century to come.”⁸ Indeed, with the emergence of the global warming crisis, the international community has set itself the problem of reducing carbon dioxide emissions through a drastic reduction in the consumption of fossil fuels. It follows that “the world economic system can no longer rely on the price of oil as a key indicator to guide economic operators, and more generally the economic policies of states. (. . .) The problems posed by the ‘sustainability’ of the global economic system would indicate that the new reference price should be the carbon price.”⁹

In the new sustainable economy, carbon pricing will therefore take on this role of reference for investment choices and resource use. However, beyond this function, the imposition of a carbon price will not only correct a market failure linked to external diseconomies generated by the use of fossil fuels, but will also allow a deep reform of the structure of public finance to start, both in terms of revenues and expenditure, towards a carbon-free and socially fair economy. Essentially, revenues will have to be recycled into the economic system, either through reductions in the tax burden on low-income households, or reductions in social security contributions.¹⁰ This is in order to favour non-energy-consuming companies with a reduction in labour costs and with an increase

⁷ *Climate change and central banking*, Keynote speech by Christine Lagarde, President of the ECB, at the ILF Conference on Green Banking and Green Central Banking, Frankfurt am Main, 25 January 2021

⁸ V. Termini, *Energia. La grande trasformazione*, Editori Laterza, 2020, p. 63

⁹ E. Flor, *Oil and Carbon Prices: the Emerging Role of the SDR*, Robert Triffin International, SDR Notes No. 7, May 20

¹⁰ This was the direction taken by Commission President Jacques Delors’ proposal for the 1992 Rio Conference on Environment and Development. Delors had drawn up a unilateral strategy for Europe to curb CO₂ emissions, based in particular on the approval of a Directive introducing a carbon/energy tax of \$10 per barrel of oil, but recycling the proceeds through a reduction in social security contributions paid by companies and workers to stimulate the economy, with a double dividend in terms of improved environmental quality and new jobs. Delors’ idea was also that if Europe led the way, other countries would follow, thus making it possible to seriously tackle the problem of global warming

in net wages of workers (for the same gross income), while expenditure will have to be directed towards supporting the investments needed to promote the ecological transition.

This Carbon Dividend will allow for a major reshaping of the tax system, to shift the burden of taxation away from labour and business income and towards fossil fuel use¹¹. Part of the revenue from a carbon price will be allocated to the national level, to promote measures to boost employment and tackle poverty levels by lowering taxes on labour, in particular on lower incomes, and reducing social security contributions levied on companies and workers. On the expenditure side, the dividend will be used to support the production of renewable energy, and to promote energy saving for households and businesses. Part of the revenue, and in particular the revenue from duties levied at the border, will flow directly to the EU budget, to promote investment in green transition – including through the development of research and innovation, the growth of the digital sector, and measures to ensure social inclusion, which has been largely penalised in recent decades by tax reforms favouring higher income classes and a globalisation process that has not been accompanied by compensatory measures for lower income classes.

This earmarking of resources underlines the fact that the imposition of a carbon price and a compensatory duty at the border clearly have purposes that go beyond the EU area. The launch of a European plan for sustainable development ensures that the revenue is used to promote a Social Green ‘New Deal’, with the priority objective of supporting a policy for the development of renewable energy sources, which will have to involve not only Europe but also other areas of the world, in particular the African continent.¹²

Within the EU, total CO₂ emissions in 2018 amounted to 3.9 billion tCO₂, of which 2.2 billion tCO₂ were in non-ETS sectors. With a price per tCO₂ of €50, in its first year the Carbon Dividend would therefore amount to around €195 billion, assuming the carbon price is applied to all emissions. If a carbon price of €50 per tCO₂ were also applied to imported products, since per capita CO₂ emissions amounted to 7 tCO₂ in 2018, of which 1 tCO₂ is related to imports, for a total of 446.1 million tCO₂ imported emissions, the revenue from the compensatory duty collected at the border would amount to €22.3 billion and would flow directly into the EU budget, increasing revenue by around 15% (the EU budget in 2019 is €148 billion).

The EU’s target is to reduce CO₂ emissions by at least 55% by 2030, progressively falling to 1.75 billion tCO₂. In turn, if carbon pricing, initially set at €50/tCO₂ rises by €10 each year to reach €100 in 2025, and then remains unchanged until 2030, total revenues over the decade – assuming a steady decline in emissions – could reach around €2.3 trillion, as the reduction in emissions would be more than offset by the increase in the carbon price.

¹¹ “These and other measures to shift the burden of taxation from labour to consumption and speculation could be done in ways that would make the tax system more efficient and less regressive than it is today. But (...) taxation is not only a way of raising revenue; it is also a way of expressing a society’s judgement about what counts as a valuable contribution to the common good” (M. Sandel, *The Tyranny of Merit. What’s become of the Common Good?* Allen Lane, 2020)

¹² The European Commission, in its Communication ‘A Hydrogen Strategy for a Climate Neutral Europe’ (Brussels, 8.7.2020 COM(2020)301), has proposed to transform the share of electricity produced in Africa from renewable sources into hydrogen (through suitable electrolyzers), to be transported to Europe through existing energy networks, in excess of the needs to fuel endogenous commercial and industrial development and meet the demand of local populations

However, these figures must be interpreted correctly, as they do not necessarily imply additional revenue for public finance. In some countries, e.g. Sweden, where the carbon tax rate is set for 2021 at EUR 114 (SEK 1,200),¹³ there may be no change in the level of the levy. In other countries, such as Italy, where energy taxation is already high, the structure of the levy may be reshaped by charging each source in proportion to its carbon content. The point to be made is that, in any case, the total revenue from carbon pricing in non-ETS sectors, and the auctioning of allowances in ETS sectors, will represent a price differential between fossil fuel and renewable energy use, representing in quantitative terms the carbon dividend that can be used for the socially just ecological transition of the European economy.

3. Carbon Dividend and the New Society

The climate change crisis may be an opportunity to reshape the global economy. The changes brought about by the ecological transition extend in many directions, and the market, without a plan to guide its choices, will not be able to set a pathway towards achieving the goal of carbon neutrality.¹⁴ “Business does not invest unless it sees an opportunity for growth – so turning mitigation into opportunities for innovation and investment is the key. This requires more than tax incentives: it requires bold investments like those witnessed in Roosevelt’s New Deal in the wake of the Great Depression.”¹⁵ It is also on the basis of this strong appeal and, at the same time, of a proper assessment of the social aspects of the Commission’s proposal,¹⁶ that it seems appropriate to speak of a *Social Green “New Deal”*.

In addition to a shift of the burden of taxation from labour to the use of natural resources, we must also consider the considerable changes that will occur in the structure of the economy following the introduction of carbon pricing. This generates a twofold effect: on the one hand, the promotion of energy saving through a reduction in energy consumption in households and businesses; on the other hand, support for fuel switching processes as consumers and producers will be encouraged to change their energy mix, progressively reducing the consumption of fossil fuels, replaced by the use of renewable energy.

At the same time, the production of private goods will be achieved with less and less use of the workforce, and demand for these products will fall as a share of GDP compared to the demand for public goods or non-market goods, which today is largely unsatisfied. The number of hours worked per worker will fall as a result of higher productivity, linked to the use of new technologies, and workers will share in the profits; these will be increasingly generated by the use of human capital – represented by the knowledge base of all those working in the company, not just those who manage it – which will occupy a more important position than financial capital in

¹³ www.government.se/government-policy/taxes-and-tariffs/swedens-carbon-tax/

¹⁴ “The good news is we are sitting on a complete revolution of technology that allows us to move in a sustainable direction. That’s a matter of choice though. Markets alone won’t take us there. We have to decide on planetary scale, we’re going for a sustainable, green, inclusive economy” (J. Sachs, *We need a sixth wave of sustainable and green technologies*, Green Week Conference 2014, European Commission, Brussels, June 3, 2014, cordis.europa.eu/news/rcn/36601)

¹⁵ M. Mazzucato, C. Perez, *Innovation as Growth Policy*, in J. Fagerberg, S. Laestadius, B. Martin, *The Triple Challenge: Europe in a New Age*, Oxford University Press, 2015

¹⁶ European Commission, *The European Green Deal*, COM(2019)640, Brussels, 11.12.2019

determining the competitiveness of the product. This will lead to a gradual shift of a significant share of income from capital to labour and, at the same time, to the participation of workers at all levels in the management of the enterprise.¹⁷

The production of public goods will have to be financed to a greater extent – in addition to the taxation of environmentally harmful consumption and the use of natural resources – through wealth taxation and a significant inheritance tax, to encourage a progressive reduction of inequalities in income distribution. But above all, it will be a matter of launching a new welfare system, based largely on the contribution of not for profit organisations, particularly at the local level. The financing of welfare would no longer be guaranteed by levies on employees, which will diminish over time due to technological developments, but to a significant extent by the constitution of a public patrimony¹⁸ following the financing, with public capital, of the investments made at different levels of government to promote the reduction of carbon dioxide emissions. This patrimony is a guarantee to generate an income stream for the welfare of future generations.

A stance taken by leading American economists suggests that revenue should be recycled into the economy by transferring a fixed sum to all citizens, regardless of income level, and without conditions.¹⁹ In the reality of the European Union, it seems more effective to finance a European

¹⁷ “The truth is that neither land is productive, nor labour is productive, nor capital is productive; production results from these three equally necessary, but taken separately, equally sterile elements. (...) Property, considered in its own right, outside the process of production, even in its most elementary expression, is a real nothing, it does not exist.” On the basis of these observations by Proudhon, Albertini concludes that “property is a social fact, but one which requires the direct, and not merely indirect, as other social facts do, concurrence of all the individuals involved; it arises together with work, with production, and cannot, as such, as the possession of the means of production, be eliminated. But alongside these fixed aspects, it also presents a changeable aspect, surplus value, as the attribution to one of the work of many” (M. Albertini, *Proudhon*, Vallecchi, 1974, pp. 56 and 65). In order to overcome this limitation, in the knowledge society, a sharing of capital and labour in the management of productive activities seems inevitable.

¹⁸ A. Iozzo, *Il dividendo sociale di Meade. Dal debito pubblico al patrimonio pubblico*, “Il Federalista”, 2010, n.1, p. 51. The reference in this text is to J. E. Meade, *Agathopia: the Economics of Partnership*, Aberdeen University Press, 1979. Iozzo also points out that “the only way out is to try to accumulate public wealth according to Meade’s project of paying a tax-free Social Dividend as a means of reducing inequalities, encouraging risk-taking and the acceptance of low wages, and simplifying the welfare system”. In this perspective, Iozzo suggests, for example, that “European funding in research, infrastructure - especially energy - will tend to increase and can assign ‘property rights’ to the Union to be entrusted to a fund that can help finance the integration income of the Continent’s young people”. He adds that “building rights on land use, often used to cover current expenses, should be placed in special patrimonial funds, since they are non-reproducible resources, supporting not only the present generation, but also future ones”. (A. Iozzo, *Quale welfare per l’Unione europea nell’era della globalizzazione*, Centro Studi sul Federalismo, Turin, Policy Paper No. 20, October 2016). The idea of allocating land use rights to a public heritage to support future generations is linked to an idea of Thomas Paine - in *The Agrarian Justice* of 1794 -, who proposed to impose a tax on access to land ownership, destined to flow into a National Fund, thus allowing the transfer of an equal sum to all - regardless of income level -, equivalent to the “natural inheritance that belongs to the right of every man”, thus allowing to solve the problem of the loss of this inheritance following the introduction of private property. This is a first formulation of a citizenship income (A. Majocchi, *Per un “dividendo ambientale” di cittadinanza*, Centro Studi sul Federalismo, Turin, Comment no. 140, 5 February 2019)

¹⁹ “To maximize the fairness and political viability of a rising carbon tax, all the revenue should be returned directly to U.S. citizens through equal lump-sum rebates. The majority of American families, including the most vulnerable, will benefit financially by receiving more in ‘carbon dividends’ than they pay in increased energy prices” (*Economists’ Statement on Carbon Dividends*, www.econstatement.org)

citizenship income for the weakest part of the population, which will receive more through the carbon dividend than it will pay as a result of the increase in energy prices. This citizenship income will h This citizenship income will aim to significantly reduce the current unbearable inequalities in income distribution.

4. A minimum price for fossil fuels in the European Union

Setting a high enough price on carbon is necessary, to promote energy saving on the one hand and fuel switching to renewables on the other, which obviously also requires the removal of fossil fuel subsidies;²⁰ but on its own it is insufficient. Indeed, the choice of an optimal price to be imposed on greenhouse gas emissions cannot guarantee that the final price of traditional energy sources for consumers and/or producers will be sufficiently high to make the use of renewable energy sources worthwhile; the increased cost can be more than offset by a large-scale reduction in fossil fuel prices at source, as has happened several times in the past (e.g. in June 2014 the price of oil reached \$106 per barrel, but a year later it plummeted to \$40).

The introduction of a carbon price must therefore go hand in hand with the establishment, as part of a long-term plan to achieve carbon neutrality, of a floor price for traditional fuels, which will guarantee the profitability of the investments needed to develop alternative energy sources, even if the price of oil or natural gas on the world market falls.²¹ The final price will then be set by the market, with the constraint that this floor price be respected. In the European Union, it will therefore be necessary to provide that reductions in the price of fossil fuels at source, if they affect the final consumer price to such an extent that it falls below the floor price, can be offset on the internal market by changes in the compensatory duty collected at the border (Border Carbon Adjustment - BCA), calculated on the basis of the difference between the world market price and the floor price set on the European market. Potential accusations of protectionist aims would be negated, as the price imposed on imports would also be paid for fossil fuels produced domestically.

The possibility of actually applying this mechanism of imposing a floor price is linked to changes in the balance of power in the world market for fossil fuels – especially oil – which was, for a long time, dominated by producers who had the power to set prices by compensating for fluctuations in the reference currency, as was clearly demonstrated in a paper by Robert Triffin International.²² The situation has now changed radically, and the market is largely governed by the choices of importing countries that pursue objectives of combating climate change through the increasing use of renewable energy. Basically, setting a minimum price and imposing a BCA that varies according to the price of oil at origin would be a visible demonstration of the fact that control over the producer's economic rent has shifted in favour of importing countries.

²⁰ “As a first step, governments will need to phase out US\$480 billion of fossil fuel subsidies that they provided in 2019 alone” (*Mainstreaming the transition to a net-zero economy*, Group of Thirty, Washington D.C., October 2020, p.25)

²¹ A. Majocchi, *Carbon pricing and the price of fossil fuels*, Centro Studi sul Federalismo, Turin, Comment no. 196, 15 October 2020

²² V. Tosolini, *Analysing Commodity Prices: Trend for Crude Oil and Wheat in US Dollars, Euro and SDR*, Robert Triffin International, Centro Studi sul Federalismo, January 2017

The hypothesis considered here envisages the application of a mechanism similar to the one used in the context of the launch of a common agricultural policy to guarantee adequate incomes for farmers; this set a minimum level of prices on the domestic market, even in the presence of a fall in world market prices, through variable levies on imported goods. The justification for this choice was that, while the industrial sector was able to develop within the Common Market as a result of trade liberalisation and the operation of market mechanisms, in the agricultural sector, which is characterised by rigidity in production and investments that require long periods to achieve a positive return, public intervention was necessary to guide the operation of the market, and set out a plan to define the reference prices needed to guide production.

Adopting the mechanism of common prices and import levies had two important consequences for subsequent developments in the European integration process. Firstly, it promoted a stabilisation of exchange rates between the different currencies of the European area, since a devaluation does not favour exports; however, this implied a substantial increase in agricultural prices on the internal market, generating a reduction in the standard of living due to a strengthening of inflationary processes. On the other hand, the revenues from agricultural import levies have been earmarked as an own resource for the European budget in order to avoid a “Rotterdam effect”, i.e. that the revenue from customs duties favours the treasury of the countries where imports into the common market take place.²³

But above all, it is important to stress that the setting of an import levy was justified by the pursuit of a European public good, represented first and foremost by food security for European consumers and, at the same time, by the guarantee of adequate incomes for agricultural producers, to ensure social peace. Similarly, the setting of a floor price for fossil fuels seems unavoidable, to ensure the achievement of the goal of carbon neutrality by 2050 and the production of a very important public good from a social point of view – the reduction of CO₂ emissions and, in parallel, of the risks of global warming.

²³ These developments were clearly anticipated in the federalist press. In particular, commenting on the agreement of 15 December 1964 on the single price of grain, it is noted that “it makes European monetary integration necessary. There can be no European price if governments, having established it, retain the power to change the value of their currencies. This is why it was decided in Brussels that European prices should be fixed not in national currencies, but in a unit of account” (*Il prezzo europeo dei cereali*, “Giornale del Censimento”, April 1965). As far as budgetary effects are concerned, it is noted that “once the stage of the single market has been reached (...) the money resulting from ‘levies’ on imports of agricultural products, as well as from customs duties levied on industrial products, (...) will have to be allocated to the Community: otherwise, for example, Holland would benefit from the duties collected on goods landed in Rotterdam, even if the place of consumption were possibly Palermo” (*La crisi del Mercato Comune*, “Giornale del Censimento”, September 1965). And after the agreement of 11 May 1966, which set the date of 1 July 1968 for the abolition of all internal customs duties and the creation of a common external tariff, it is stressed that the free movement of agricultural products “deprives each individual national government of the power to control the value of its currency. Since agricultural prices are fixed in units of account (...) the development of trade flows would not be altered by devaluation or revaluation of a national currency” (*Un accordo storico: Bruxelles 11 maggio 1966*, “Giornale del Censimento”, May 1966).

5. Carbon price and border tax adjustment

For several reasons, and as the case was for common agricultural prices, in addition to the setting of a floor price European carbon pricing will have to be accompanied by the imposition of a compensatory duty at the border (a BCA), levied on the import of goods into the EU territory from countries that do not impose a carbon price. This compensatory duty, which will be applied to all sectors – including both those covered by the Emission Trading System (ETS) and sectors currently excluded from the ETS where a carbon price, levied on the various energy sources and commensurate with their carbon content, is expected to be imposed in the future – will provide additional revenue for the European budget as an own resource. The size of this will, naturally, depend on where the imported goods come from and whether a carbon price is imposed in the exporting country.

An effective design for the introduction of carbon pricing – as a complement to the EU ETS - will therefore have to include a price imposed on total carbon consumption, including the taxation of imports of goods produced using fossil fuels. This implies that carbon pricing should combine a levy on domestic consumption and a border tax adjustment. The existing ETS covers less than half of total carbon emissions, as buildings and the domestic sector are not included in the system, as is much of the transport sector, along with agriculture. The new levy in these sectors excluded from the ETS will have to be imposed on coal, gas and mineral oils, and be commensurate with the carbon content of each energy source. Given the fixed relationship between carbon inputs and the quantity of emissions, introducing a price on energy sources based on carbon content is effectively taxing CO₂ emissions directly.

If the domestic tax is complemented by a BCA, levied on imports of goods from countries that do not set a carbon price, the competitiveness of European companies would not be undermined and the risk of carbon leakage is avoided, while respecting the rules of the World Trade Organization (WTO). This choice is essential to ensure the political acceptability of the imposition of a price on carbon within the EU – and therefore the achievement of carbon neutrality by 2050 – as, without this measure, serious distortions would arise to the detriment of European production. However, the adoption of the BCA remains controversial, and is rejected by free trade theorists as not being in line with WTO rules.

In fact, it does not seem that the pursuit of a level playing field implies a distortion of competition at the international level.²⁴ In principle, the justification for a border tax adjustment is based on the rule of taxation in the country of destination, according to which goods are taxed where they are consumed, not where they are produced. The tax levied on imports should be equivalent to the tax levied on the corresponding domestic product because, according to WTO rules, a state should not discriminate between domestic and foreign goods.

If a BCA is considered to be an application at the border of the same price that is paid in EU countries, the countervailing duty does not treat imported products less favourably than similar European products and, consequently, basing a tax on the carbon content of imported goods seems to ensure that the BCA is compatible with Article I (Most-Favoured Nation Treatment) of

²⁴ A. Majocchi, *Carbon Pricing and Border Tax Adjustment: the Compatibility with WTO Rules*, Centro Studi sul Federalismo, Turin, Research Paper, February 2018

the GATT Treaty of 30 October 1947, as transposed into the WTO agreements, according to which the EU cannot discriminate against an import on the basis of its origin. On the other hand, goods produced using fossil fuels cannot reasonably be considered a like product with goods produced with renewable energies (just as organic agricultural products cannot be considered like agricultural goods produced with pesticides). In any case, the establishment of a BCA can always be considered as falling within the General Exceptions of Art. XX of the GATT.

6. Setting a floor price for fossil fuels

A European decision to set a floor price for fossil fuels consumed in the European market, in parallel with the introduction of generalised carbon pricing, regardless of variations in the price at origin, thanks to the introduction of a variable rate of duty levied at the border, seems justified. This is based not only by the need to ensure the ecological transition towards carbon neutrality through an adequate flow of investment to guarantee the availability of alternative energy sources, but also by the pursuit of a common good for the international community represented by the control of climate change and the proper functioning of the energy market. In reality, this market is characterised by strong oligopolistic features that require public intervention, and the definition of a plan to regulate its functioning.

After World War II, the energy market was governed by the *Seven Sisters*, a term coined by Enrico Mattei,²⁵ after he was appointed liquidator of AGIP in 1945, to indicate the oil companies that dominated world oil production in terms of turnover from the 1940s until the 1973 crisis. Subsequently, the management of the world market passed into the hands of OPEC (Organization of the Petroleum Exporting Countries), comprising twelve countries that joined together, forming an economic cartel, to negotiate with oil companies on aspects of oil production, prices and concessions. Throughout this period, the market has therefore been governed by oil companies and producing countries. Today, conditions have changed, and the governance of the world market must be provided directly by energy-consuming countries, which are committed to the ever-increasing production of renewable energies in order to achieve the goal of carbon neutrality. And since this is a global, not a regional common good, the path to this goal must also be pursued globally.

The first stage in this process could be COP26, which will take place in November 2021 in Glasgow. At this meeting, the EU will have to propose a plan that sets out the various steps to be taken to achieve the goal of carbon neutrality in 2050 and, first and foremost: a) the amount of investment planned for the development of renewable energy; b) a generalised carbon price for all sectors that will rise to €100/tCO₂ in 2025; c) the establishment of a BCA on all imported goods that use fossil fuels in their production process. On this basis, the EU would be justified in requiring all parties to set a minimum price for fossil fuels, that guarantees the gradual development of renewable energy production through investments whose profitability cannot be jeopardised by competitive reductions in prices at origin.

²⁵ On Mattei's role and his attempt to break the oligopoly of the Seven Sisters: A. Majocchi, *Mattei e l'eclissi delle sovranità nazionali*, "Popolo europeo", Year V, no. 2, February 1962

Given the fairly realistic hypothesis that no unanimous agreement can be reached at COP26 on setting a minimum price for fossil fuels – which would be the first building block of a global energy governance plan – the EU should promote a more restricted agreement, in particular by involving the African Union, to launch a joint project to develop renewable energies. This would include the allocation of adequate financial and technological resources to support the production of new sources of energy in the countries south of the Mediterranean, the economic viability of which would be ensured by the certainty that the price of fossil fuels on the internal market could not fall below a level that would threaten the profitability of renewable energy. This agreement should, in time, be extended – potentially to OPEC countries – to accompany their development towards alternative forms of energy production, and to help them compensate for the stranded assets represented by fossil fuel deposits that are destined to become progressively unused.²⁶

7. The extension of the ETS to transport and heating in Germany

On 29 November 2019, the two branches of the German Parliament approved the decision to introduce a carbon price of €10 per tCO₂ in the transport and domestic heating sectors, which together account for 32% of Germany's greenhouse gas emissions. But, under pressure from the Green Party, it was decided during the negotiation process between the Bundestag and the Bundesrat to raise this price from €10 to €25 per tCO₂ from 2021, implying a final price increase of 7 cents per litre on petrol, 8 cents on diesel and fuel oil, and 0.5 cents per kWh.

The law extending the application of an emissions trading scheme to two new sectors has thus come into force,²⁷ (with some minor changes thereafter, approved on 3 November 2020). Under the mechanism adopted, companies selling fossil fuels will be required to purchase emission allowances, the price of which will gradually rise from €25 per tCO₂ in 2021 to €55 by 2025, to be determined by the market from 2026, although it will not be able to deviate from a price corridor set at between €55 and €65 per tCO₂. In any case, the government will be able to introduce corrective measures to maintain the competitiveness of companies and avoid the risk of carbon leakage. The new revenue will be used to reduce the EEG (*Erneuerbare-Energien-Gesetz*) surcharge on electricity bills, and to finance the development of renewable energy. To alleviate the burden on citizens when fuel prices rise, the climate package includes a higher commuter subsidy.

The German Emissions Trading Scheme (ETS) for transport and domestic heating (excluding methane emissions from intensive agriculture) will run in parallel with the EU Emissions Trading Scheme (ETS) and will cover most greenhouse gas emissions not included in the ETS. The price will be imposed on the transport sector (excluding aviation) and domestic heating, affecting fuels such as petrol, diesel, gas oil, natural gas and coal, and will not be paid directly by the carbon

²⁶ On the need to accompany the Green Deal with an active foreign policy to support the countries most affected by the EU's reductions in fossil fuel imports: M. Leonard, J. Pisani-Ferry, J. Shapiro, S. Tagliapietra, G. Wolff, *The EU Can't Separate Climate Policy From Foreign Policy. How to Make the European Green Deal Succeed*, "Foreign Affairs", February 9, 2021, www.foreignaffairs.com/articles/europe/2021-02-09/eu-cant-separate-climate-policy-foreign-policy

²⁷ Brennstoffemissionshandelsgesetz vom 12. Dezember 2019 (BGB1. I S. 2728) das durch Artikel 1 des Gesetzes vom 3. November 2020 (BGB1. I S. 2291) geändert worden is

emitters but by the companies that put the fuels into circulation or the fuel producers (*upstream approach*).

The Political Guidelines 2019-2024, presented on 16 July 2019 to the European Parliament by the then candidate President von der Leyen,²⁸ already included the stated intention to “extend the Emissions Trading Scheme to the maritime sector, to reduce over time the free allowances allocated to airlines and to apply this mechanism also to transport and the residential sector”. The German decision is a step in this direction and avoids a divisive choice between adopting a system in which emission quantities are set *ex ante*, and a carbon pricing system in which the quantity of emissions depends on the elasticity of demand for fossil fuels. In fact, in Germany, a mechanism similar to the European ETS has been adopted: emission permits will be distributed and sold, starting in 2026, through auctions, setting a corridor within which the price can fluctuate.

These permits will have to be acquired by those who place fossil fuels on the market, and the cost of these permits will then be passed on – to the extent that market conditions allow for a forward shifting – in the selling price to final consumers. Ultimately, having adopted this upstream approach, whereby emission permits are purchased upstream of the fossil fuel’s utilisation, as is the case with mineral oil taxation, the chosen instrument appears similar to the introduction of an excise tax such as the carbon tax, but has the advantage of fitting into an existing mechanism such as the ETS. The German decision therefore represents a decisive push to introduce, at the European level, carbon pricing extended to sectors not included in the ETS.²⁹ This comes in the wake of a proposal, that the Commission intends to present by 2024, to have new own resources to finance the European budget, thus ensuring not only the payment of interest on funds raised on the market and intended to finance the Next Generation EU, but also, from 2028, the repayment of bonds issued by the Commission.

8. Next Generation EU and investments in the sectors

The European Council of 21 July 2020 approved an extraordinary programme called Next Generation EU, aimed at reviving the European economy affected by the pandemic, with a budget of €750 billion raised through bond issues on the market. This is a significant change in EU policy, both in terms of the size of the intervention to support the European market, and the debt financing of the intervention itself, which has led to the need to raise the amount of own resources to 2% of GDP. The main programme under the Next Generation EU is the Recovery and Resilience Facility (RRF), with a budget of €672.5 billion, of which €360 billion in loans and €312.5 billion in grants. Member States will have to prepare national recovery and resilience plans, setting out each Member State’s reform and investment programme for the years 2021-23.

Italy has been relatively favoured in the allocation of resources, which in total amount to €209.89 billion, of which €196.5 billion are earmarked for the Recovery and Resilience Plan (RRP). In the

²⁸ U. von der Leyen, *A Union that strives for more. My agenda for Europe. Political Guidelines for the next European Commission 2019-2024*, European Parliament, 16 July 2019

²⁹ For a similar stance: *Climate change and central banking*, Keynote Speech by Christine Lagarde, President of the ECB at the ILF Conference on Green Banking and Green Central Banking, Frankfurt am Main, 25 January 2021

draft National Plan under discussion, the largest share is devoted to the chapter on the Green Revolution and Ecological Transition (€66.59 billion), while €45.38 billion would be allocated to Digitisation, Innovation, Competitiveness and Culture, €31.98 billion to Infrastructure for Sustainable Mobility, €26.66 billion to Education and Research, €21.28 billion to Inclusion and Cohesion and, finally, €18.01 billion to Health.

Beyond these gross figures, of particular interest is the breakdown within these major areas of intervention. Thus, within the 'Green Revolution and Ecological Transition' package, €17.53 billion is allocated to 'Energy Transition and Sustainable Local Mobility', but above all €29.03 billion to the 'Energy Efficiency and Renovation of Buildings' programme, for a total amount of €46.56 billion, representing 22.3% of the total appropriations for the Next Generation EU share allocated to the RRP.

The important point to underline is that the responsibility for these investments will fall largely on the shoulders of local administrations. Dario Nardella, first citizen of Florence and president of Eurocities, the largest network of European metropolises, reminded³⁰ President von der Leyen that "the ambitious goals that the European Commission has set itself, including carbon neutrality by 2050, can only be achieved on two conditions: that mayors are fully involved in the construction of the strategies and that they have a direct funding channel to carry out those works necessary to reduce pollution as 80% of energy is consumed in urban centres, just as cities are responsible for 80% of carbon dioxide emissions".

Two important consequences initially follow from this: firstly, the representatives of lower levels of government cannot be excluded from the steering committee that will govern the implementation of the plan, and secondly, the financial management of municipalities and intermediate levels of government will have to be reconsidered within the framework of a fiscal federalism model that provides adequate fiscal autonomy for these levels, alongside corresponding responsibility for the management of public resources.

9. Climate change and the role of cities

Indeed, much of the change to be achieved with the new European resources to reduce carbon dioxide emissions involves the management of cities. First and foremost, this concerns the climate control of buildings, in particular the energy efficiency of the existing building stock and the development of buildings using only renewable energy sources, which will require a share of public funds to mobilise private funds. But in cities the main barriers to reducing the use of fossil fuels are related to mobility.

Lewis Mumford³¹ observed how the development of the city in the modern era was designed around the use of the private car as a means of mobility. This type of development has generated congestion, the growth of pollution and, ultimately, a deterioration in the quality of life of citizens. In fact, the use of fossil fuel powered cars in cities is incompatible with the pursuit of carbon neutrality.

³⁰ *La richiesta dei sindaci all'Europa: «Il 10% del Recovery alle città», "Corriere della Sera", 20 December 2020*

³¹ L. Mumford, *The City in History: Its Origins, Its Transformations, and its Prospects*, New York, Harcourt, Brace and World, 1961

In another of his essays, Mumford observed that “if the problem of urban transportation is ever to be solved, it will on the basis of bringing a larger number of institutions and facilities within walking distance of the home; since the efficiency of even the private motor cars varies inversely with the density of population and the amount of wheeled traffic it generates”.³² This apparently simple observation is the starting point for rethinking the structure of the urban fabric to guarantee mobility in ways that are compatible with the progressive elimination of the use of means of transport powered by fossil fuels.

The second observation concerns the sprawling development of the city’s structure that has historically occurred, with all the higher functions concentrated in the historic centre and the suburbs lacking essential services. For Mumford, instead, the reference model must be represented by a return to the scheme of the medieval city: “the medieval city was composed on the neighborhood principle, with the Church serving as community centre and the market place adjacent to it as shopping centre, both within easy walking distance of all the inhabitants”.³³ And he adds: “The creation of a neighborhood involves something on a different pattern than that which has hitherto characterised the undifferentiated big city; for it also demands the orderly provision and relationships in both space and time of a group of neighborhood institutions, such as school, meeting halls, shops, pubs, restaurants, and local theatres. This calls for the continued activity of a public authority”.³⁴

Finally, over and above the urban planning effects of a neighbourhood-based structure, one must consider the fact that neighbourhoods represent the basis for a community life based on principles of solidarity, which existed naturally before being jeopardised by urban development aimed at encouraging car traffic, and by the sprawling expansion of the urban fabric. Mumford again observes that “in a rudimentary form neighborhoods exist, as a fact of nature, whether or not we recognise them or provide for their particular functions. For neighbors are simply people who live near one another. To share the same place is perhaps the most primitive of social bonds, and to be within view of one’s neighbors is the simplest form of association. Neighborhoods are composed of people who enter by the very fact of birth or chosen residence into a common life. Neighbors are people united primarily not by common origins or common purposes but by the proximity of their dwellings in space.”³⁵ And the strengthening of this community element represents the basis for supporting a new welfare structure in which, beyond public intervention, an important role is played by individual behaviour oriented by a spirit of solidarity.

A similar approach can be found in an important contribution by Rajan.³⁶ The ‘third pillar’ is the community in which we live. Economists too often limit their work to an analysis of the relationship between the state and markets and leave the more significant social issues to others. This is not only short-sighted, but also dangerous. The whole economy is actually interwoven with social relations, as markets are embedded in a network of human relations, values and norms. As

³² L. Mumford, *The Neighborhood and the Neighborhood Unit*, “The Town Planning Review”, Jan. 1954, Vol. 24, No. 4, p. 264

³³ *Ibid.* p.257

³⁴ *Ibid.* p.266

³⁵ *Ibid.* p.257

³⁶ R. Rajan, *The Third Pillar. How Markets and the State Leave the Community Behind*, Penguin Press, 2019

markets grow in size, the state adapts to this larger scale, concentrating economic and political power in rich central poles and letting the periphery disintegrate and degrade.

Instead, Rajan offers a way to rethink the relationship between the market and civil society, and argues for a return to strengthening and empowering local communities as an antidote to the growing despair and disorder of life in urban centres.³⁷ Markets and the state have usurped communities' power, and the balance needs to be reset. Power must devolve from global and national levels to the community. Rajan notes that as machines and robots begin to produce more of our goods and services, human work will centre once again around inter-personal relationships. Communities could well be the workplace of tomorrow.

All this presupposes an institutional structure that is federal in nature, allowing for the participation of all levels of government in decisions that affect the whole community or parts of it. This also includes a reappraisal of the mechanisms of fiscal federalism, which provides not only for the availability of autonomous fiscal resources for each level of government, but also an institutional structure that provides for the participation, in a second chamber, of the lower levels of government in the decision-making mechanisms of the higher levels.

10. Restructuring the city by neighbourhoods

Restructuring the city by neighbourhoods will require major investment in the creation of essential services in each neighbourhood to ensure that most journeys can be made by environmentally friendly means (walking or cycling), phasing out the use of cars and other means of transport powered by fossil fuels. Every neighbourhood will have to be equipped with a local school – so that it can be reached without the use of a car and can also be used as a social and cultural centre during non-teaching hours – as well as the commercial activities essential to daily life. There will also be essential health services, starting with a first aid room with the necessary means to guarantee therapeutic treatment and emergency interventions of no particular complexity. Higher-level services will be distributed across different districts to avoid a one-way flow from the suburbs to the centre.

Travel between neighbourhoods should be by public transport or, when public transport is not available, by electric car powered by renewable energy. *Ad hoc* routes should be established to allow cars to leave the urban fabric. Large green spaces should be created within the neighbourhoods to be used in particular by children for playing and by elderly people to move around in a natural environment. Green spaces will separate neighbourhoods and also function as carbon sinks. The road structure will have to be revolutionised to ensure separate routes for public transport, bicycles and pedestrians.

Today, the issue of restructuring cities by neighbourhoods is on the agenda in many European cities. In particular, in her programme for the election as mayor of Paris, Anne Hidalgo envisages

³⁷ “Democracy does not require perfect equality, but it does require that citizens share in a common life. What matters is that people of different backgrounds and social positions encounter one another, and bump up against one another, in the course of everyday life. For this is how we learn to negotiate and abide our differences, and how we come to care for the common good” (M. Sandel, *What money can't buy. The moral limits of markets*, Allen Lane, London, 2012, p. 203)

that Parisians should have all the services they need within 15 minutes of their homes.³⁸ To achieve this goal, she proposes a new urban organisation of the city. The basic idea is simple: to make the services needed to meet citizens' main needs accessible in no more than a quarter of an hour, on foot or by bicycle. This accessibility must be possible at any point in the city.

This project includes, in particular, the creation of green and cycle paths separated from motorised traffic, with widened pavements and local operators to coordinate street cleaning and maintenance. To improve the proximity of services, Anne Hidalgo also proposes to multiply the uses of the same place. For example, she wants to open the schools at weekends and turn the playground into a garden where children can meet and behave freely. Some of the buildings used as car parks could house bicycle garages.

According to Carlos Moreno,³⁹ the urban planner who is coordinating this project for Mayor Hidalgo, "the aim is to transform the urban area, which is still very much mono-functional, with the main centre and its various specialisations, into a polycentric city, led by four main components: proximity, diversity, density and ubiquity in order to offer this quality of life in short distances, that of the six essential urban social functions: living, working, shopping, healthcare, learning and fulfilment. It is the city of the quarter-hour, in compact areas, (or of the half-hour territory in semi or low-density areas), of hyper proximity, of accessibility for all and at all times."⁴⁰

In France, there has been a lot of thinking about these projects, with studies carried out in 11 large cities (200,000 inhabitants and more) to see what work still needs to be done to achieve this objective; this analysis has shown that the inhabitants of the cities studied are on average 4.5 minutes away from a shop and 17.5 minutes away from a swimming pool. The main problem is work. Only 10% of the inhabitants of these cities walk to work. But even in this area, the urban revolution will be facilitated by the spread, following the constraints imposed by the pandemic, of increasingly widespread forms of smart working, which will significantly reduce commuting flows.

But this hypothesis does not only concern Paris. The mayors of C40 have joined together in a network of global cities (including Milan, Los Angeles, Melbourne, New Orleans, Rotterdam, Seattle, Freetown, Hong Kong, Lisbon, Medellín and Seoul) to launch the Global Mayors COVID-19 Recovery Task Force,⁴¹ to rebuild their cities and economic structures to improve public health, reduce inequalities, and tackle the climate crisis. In their meetings, among the ideas proposed to revitalise cities is that of the 'city in a quarter of an hour'. All in all, it seems safe to say that Mumford's ideas of a revolution in urban structure organised by neighbourhoods are beginning to take shape.

³⁸ M. Girard, *La ville du quart d'heure, une utopie?*, "La Presse", 26 Septembre 2020

³⁹ C. Moreno, *Droit de cité, de la "ville-monde" à la "ville du quart d'heure"*, Éditions de l'Observatoire, 2020

⁴⁰ F. Perrigault, *La ville du quart d'heure, nouvelle hype des stratégies urbaines*, 17-11-2020, www.magazine-decideurs.com/la-ville-du-quart-d-heure-nouvelle-hype-des-strategies-urbaines

⁴¹ www.c40.org/other/covid-task-force

11. Financing local expenditure in a fiscal federalism model

An institutional and financial problem remains. The urban territory, comprising the main centre and the different districts, should be governed by a municipal council representing the whole territory and by a co-decision-making body representing the different districts, which in turn should be equipped with self-governing bodies capable of taking decisions on matters relating to the life of each district, with the necessary financial means at their disposal. Similarly, at the metropolitan level, the central city and the peripheral cities should have a similar institutional structure.⁴² However, in the new perspective of the urban revolution, the problem of financing remains decisive, within the framework of a fiscal federalism model that must be applied from the European level down to the neighbourhoods.

At the European level, the inter-institutional agreement on the multiannual budget reached on 10 November 2020 sets a precise series of deadlines for the introduction of new own resources to finance the EU budget.⁴³ As a first step, a new own resource, consisting of a share of revenue from national contributions calculated on the basis of the weight of non-recycled plastic packaging waste, will be introduced, and is expected to enter into force in 2021. Following the impact assessments launched in 2020, the Commission will present proposals for a border tax adjustment mechanism based on the carbon content of imported goods, and a digital levy, accompanied by a proposal for the introduction of new own resources on this basis by June 2021, with a view to their introduction at the latest on 1 January 2023. The Commission will also review the EU ETS in spring 2021, including its possible extension to the aviation and maritime sectors, and propose an own resource based on the ETS by June 2021. The introduction of these new own resources is foreseen by 1 January 2023. Finally, by June 2024, the Commission will propose, on the basis of impact assessments, additional new own resources which could include a financial transaction tax and a financial contribution by the corporate sector, based on a new common corporate tax base. The Council will decide on these new own resources at the latest by 1 July 2025 with a view to their introduction by 1 January 2026. Following the decision of the European Council of 21 July 2020, which gave the Union the opportunity to issue bonds of €750 billion,⁴⁴ guaranteed by the European budget, to finance the Next Generation EU, this definition of a timeframe, from 2021 to 2026, for the introduction of new own resources, represents a decisive step towards the recognition of a fiscal capacity of the Union.⁴⁵

⁴² A. Majocchi, *Il Green Deal, la nuova città, il federalismo fiscale*, Centro Studi sul Federalismo, Commento n. 200, 16 novembre 2020

⁴³ *Interinstitutional agreement between the European parliament, the Council of the European union and the European Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management, as well as on new own resources, including a roadmap towards the introduction of new own resources* www.europarl.europa.eu/doceo/document/A-9-2020-0261_EN.htm

⁴⁴ In an interview with *Le Monde* on 19 October 2020, ECB President Lagarde stressed “the possibility of it remaining in the European toolbox so it could be used again if similar circumstances arise”

⁴⁵ “Ideally, in a deeper Economic and Monetary Union, the central fiscal capacity would have a sufficiently large budget fully based on own resources and with the capacity to borrow. However, this would be the most challenging option in political terms” (European Fiscal Board, *Annual Report 2020*, 28 September 2020). In fact, the recognition of a fiscal capacity of the Union implies a transfer of power from the states to the Union. In this regard, Albertini, discussing the need “to give more strength to the so-called Executive and the so-called Parliament of the EEC”, pointed out that “these bodies already have the maximum amount of power compatible with the exclusive sovereignty of the states, and therefore their strengthening can only be done at

As regards the financing of lower levels of government, a first consideration concerns the financing of investments to be made in cities. In the classic theory of public finance, the most widespread version of the ‘golden rule’ is that current expenditure must be financed by tax revenues, while investment expenditure can also be financed by issuing public bonds. In this case, the balanced budget rule applies to the current budget, while investment expenditure can be financed with debt (with some constraints to avoid over-indebtedness, such as setting a maximum share of tax revenues that can be used to cover debt-related expenditure).⁴⁶ In view of the fall in public investment in the EU, the reasons for relying on this classic version of the golden rule seem obvious,⁴⁷ since it is considered that the coverage of expenditure that is destined to produce its effects over a long period of time – in some cases decades – cannot be made in a single financial year, and must be spread over several budgets. Among other things, if public investment promotes growth, revenue increases, thus making it possible to cover investment costs.

The financing of local authorities’ investments can be supported by transfers from higher levels of government, national or European. These transfers can be conditional, in the sense that the end-use is fixed by the granting authority, or unconditional, which leaves greater freedom of choice to the local authority.⁴⁸ However, beyond transfers from higher levels of government, or *ad hoc* financial public bodies specifically intended to finance local investment, lower levels of government will also have to raise resources through autonomous taxes. In this perspective, the introduction of a levy on real estate, which also takes into account its ecological characteristics,⁴⁹ and on increases in the value of building areas, should be considered first and foremost; with, additionally, due consideration of the experience of several European countries in the field of local finance.

the expense of this sovereignty, with a transfer to Europe of real political powers. This does not imply that the first act of this transfer has to take its definitive form from the outset” (M. Albertini, *Una discussione sulla possibilità di fondare la Federazione europea*, “Il Giornale del Censimento”, II (settembre-ottobre 1966), n. 9-10, reproduced in M. Albertini, *Tutti gli scritti*, V. 1965-1970, Il Mulino, Bologna, 2008, p. 286). Similar considerations can be made regarding the creation of a full fiscal capacity of the Union

⁴⁶ M. Aglietta, *Zone Euro. Éclatement ou Fédération*, Michalon, Paris, 2012, p. 134

⁴⁷ “The EFB proposes the introduction of a limited Golden rule to protect public investment (...). Our variant of the Golden rule would exclude some specific growth-enhancing expenditure from the net primary expenditure growth ceiling. The selection of relevant expenditure would take into account projects already identified by the EU budget” (European Fiscal Board, *Assessment of EU fiscal rules with a focus on the six- and two-pack legislation*, August 2019). This indication will become relevant when the extraordinary financing foreseen to cope with the COVID19 crisis comes to an end

⁴⁸ The hypothesis of using the ESM (European Stability Mechanism) to support local authorities’ investments has also been put forward (A. Iozzo, F. Masini, *A Green Deal for European Cities. Rethinking the Role of the European Stability Mechanism*, Centro Studi sul Federalismo, Turin, Policy Paper, May 2020). But this eventuality has not been considered by the reform of the Treaty establishing the ESM, which was approved on 27 January 2021 and will have to be ratified by the Parliaments of the 19 ESM member countries. In the words of ESM Managing Director Klaus Regling “following the ratification of the Treaty, the ESM will become the backstop to the Single Resolution Fund (SRF), taking us a step closer towards completing banking union, which will make our monetary union more resilient. In addition, the ESM will have a stronger role in future economic adjustment programmes” (www.esm.europa.eu/press-releases/esm-members-sign-revised-treaty-entrusting-institution-new-tasks#_ftn1)

⁴⁹ A hypothesis put forward at a recent meeting by Prof. Stefano Corgnati of Turin Polytechnic suggested that, in order to generate not only revenue but also positive environmental effects, a property tax such as IMU should be commensurate not with the m² of premises but with the CO₂ emissions per m².

A wealth tax, with progressive elements to avoid overburdening the lowest income classes, would be levied on a tax base closely linked to wealth levels, and would therefore have a related function – beyond the ability to provide a significant amount of revenue – in promoting social inclusion processes due to progressive tax rates. The levy of this tax could also be aimed at modifying the urban structure, since it weighs more heavily on central areas, where most of the rich people live, thus favouring, if accompanied by the spread of basic services in all neighbourhoods, the development of a polycentric city.

A tax commensurate with the increase in the value of building areas⁵⁰ could achieve a twofold objective: on the one hand, to transfer to the budget of the local authority a part of the benefits that depend, to a large extent, on the decisions of the local authority itself; on the other hand, to weaken the incentive to extend land use by reducing the expectations of substantial gains linked to the transformation of agricultural land into building areas.

In order to reduce pollution in cities, one can consider, firstly, the use of prices charged on the use of natural resources and, secondly, a form of consumption levy that reflects the level of affluence of households. In this perspective, a tax similar to the so-called family tax – that existed before the 1970s reform of the Italian tax system – could be envisaged, proportional to wealth indices linked to an assessment of the taxpayer's standard of living. This tax should be commensurate with the amount and type of consumption carried out by a household over the course of a year, with particular weight given to the purchase of luxury or environmentally harmful goods. In addition to a new, more environmentally friendly consumption structure, redistributive objectives could also be gained from this levy.

Furthermore, a potential tourist tax could include not only hotels, but also B&Bs and, in general, accommodation in private homes. In cities of art, the payment of the tax could be justified not only as a payment due for the free enjoyment of the beauties of the city, but also as a Pigouvian tax that compensates for the environmental damage caused by tourism, which generates profits for private individuals and costs for the public sector. In neighbouring localities, such a tax would aim to prevent 'hit and run' tourism, which aims to reduce the cost of accommodation by moving from the city of art to a nearby, less expensive location.

New measures should be envisaged to progressively limit the use of fossil fuel-powered cars in cities, a priority objective to achieve carbon neutrality by 2050. Restrictive measures should initially be accompanied by incentives for the use of alternative, non-polluting means of transport (including e-bikes), with the aim of gradually limiting the use of private cars to extra-urban mobility. A prerequisite is the development of an efficient and environmentally friendly public transport system. The reduction of car use would be favoured by the spread of smart working, which significantly reduces the number of commuters, and by the expansion of car sharing mechanisms. However, a progressive transformation of the urban structure is an imperative for promoting sustainable mobility. This can only be achieved when Mumford's idea that the problem

⁵⁰ "Building rights on land use, which are often used to cover current expenses, should be placed in special patrimonial funds, as they are non-reproducible resources, supporting not only the present generation but also future ones" (A. Iozzo, *Quale welfare per l'Unione europea nell'era della globalizzazione*, Centro Studi sul Federalismo, Torino, Policy Paper n. 20, Ottobre 2016)

of urban mobility can be solved by bringing as many institutions and facilities as possible within walking and cycling distance from home is implemented.

A fee for the use of parking spaces in shopping centres, supermarkets, universities and workplaces should be introduced to apply a levy commensurate with the environmental damage generated by car use. This measure is equivalent to an incentive to use bicycles or public transport, and will encourage retail in neighbourhoods, thus limiting the need for mobility within the city.

A charge should be made for the use of public land for parking purposes, also extending to residents, so that urban streets are progressively freed not only from the use of private cars, but also from car parking. The price will have to be gradually increased – over a period of time adequate to provide enough parking spaces in affordable public car parks that can be reached on foot or by bicycle in every district of the city – up to a level that warrants the purchase a private garage (for convenience) or storing the car in a public car park. At this point, parking bans can be imposed on urban streets, restoring them to a more sustainable use as pedestrian or cycle paths, or to use for public transport, which would become much more efficient without the hindrance of private traffic or roadside parking.

Ultimately, the financing of lower levels of government will have to be targeted at a more sustainable use of land and its resources, within the framework of a green tax reform that not only provides the necessary resources, but is compatible with advanced environmental objectives, in particular the reduction of carbon dioxide emissions.

12. Decision-making mechanisms for the allocation of resources between the different levels

Given the diversity of functions that are attributed to the different levels of government, the central problem of a fiscal federalism system is the decision-making mechanism that can be used to define a fair allocation of resources. If the distribution does not take place by means of mechanisms that guarantee not only real financial independence of the lower levels of government, but also their real participation in decisions concerning the distribution of resources, the central government will naturally tend to assume a prevaricating role, as has already happened in the federal states, and in particular in the United States. The opposite is true if the funding of the central level is decided by the lower levels, which have a right of veto over the distribution of resources, as in the case of the EU.

On the other hand, the distribution can neither take place on the basis of the quality of the taxes – reserving some of them specifically for each level of government – since it cannot be guaranteed that the evolution of the revenue from these taxes is adequate to meet the objectives to be achieved; and nor can this be achieved on the basis of pre-established quantitative limits, i.e. with constraints that would prevent economic policy from matching the needs of the changing economic situation. In order to have an effective system of fiscal federalism, the decision on the allocation of resources between the different levels of government must be the central element of a plan in which the fundamental choices that affect the lives of all citizens are made consistent.

It is true that the federal principle is based on Wheare's classic definition, according to which “by the federal principle I mean the method of dividing powers so that the general and regional governments are each, within a sphere, coordinated and independent”.⁵¹ A system of fiscal federalism can therefore only be considered effective to the extent that there is independence, including in fiscal matters, on the part of all levels of government. But, if the taxation of a lower level is decided unilaterally by the higher level, according to Wheare’s model “this is not federalism, it is decentralisation”. However, the problem also arises in genuinely federal states, where the fiscal autonomy of the constituent units is recognised. In tax matters, competences compete structurally, since a levy at any level of government is in any case borne by the same taxpayer, and a higher levy by the central state or the system of regional or local self-government, given the level of tax burden considered sustainable in a given social context, leaves less resources available for the other levels of government. It is therefore necessary to find a procedure that allows an agreed solution between the central government and all local governments. Only in this way can independence and coordination be concurrently guaranteed, according to the criteria set by Wheare.

In federal systems, regional governments not only have a constitutionally recognised role, but regional realities also have constitutional significance in the mechanisms of representative democracy. The German system is the most effective in this respect. Here, the second chamber, the Bundesrat, is made up of representatives of the governments of the Länder and has competence, i.e. the right of initiative and veto, over all matters that are of importance to the Länder, and in particular over the fiscal stance and tax system. In this way, a close integration of decision-making between the federal government and the constituent units is achieved, which produces positive results both in terms of the territorial allocation of resources and in terms of economic stabilisation and development.

In reality, a functional multi-level finance system requires the full participation of all levels in the decisions that affect them.⁵² If the essential point is to establish who has the power to have the last word, in particular on decisions concerning the allocation of fiscal resources, the only balanced solution is to identify an effective institutional forum for co-decision. Otherwise, if the central state has the final say, the system tends towards centralisation, as is the case in Italy; if it is decentralised, the central government is a prisoner of the decisions taken by the constituent units, as is the case in the EU’s financing system.

The institutional architecture of a multilevel union, and in particular of the European Union, requires that decisions on fiscal matters be taken through a procedure that demands, at the beginning of each legislature, the convening of a joint meeting of representatives of the European Parliament and national parliaments, which define, on a proposal from the Commission, the lines of the Multiannual Financial Framework, which then have to be approved by the Council, where the Member States are represented, and by Parliament, where the elected representatives

⁵¹ K.C. Wheare, *Federal Government*, London, Oxford Univ. Press, 1963, p. 10

⁵² A. Majocchi, *Federalismo fiscale e Senato delle Regioni*, Centro Studi sul Federalismo, Torino, Commento n. 98, 16 gennaio 2017

of European citizens sit.⁵³ Decisions would have to be taken by qualified majority, whereas today Article 312(2) of the TFEU stipulates, for approval, that “the Council, acting in accordance with a special legislative procedure, shall adopt a regulation laying down the multiannual financial framework. The Council shall act unanimously after obtaining the consent of the European Parliament, which shall be given by a majority of its component members.”

At the European level, a modified institutional structure would provide an optimal solution to the problem of the decision-making mechanism to be used to distribute tax resources among the different levels of government. Moving away from the humiliating and ineffective practice of bargaining based on the assessment of a ‘juste retour’ by each Member State, the definition of new resources at the European level and, consequently, the allocation of resources between the European and national levels, would be approved at the beginning of each legislative period by both branches of the legislative authority, the Council and the European Parliament, but with a majority vote. This would create a federal body, which is by nature dialectical, representing both the interests of the community and of its parts, while at the same time guaranteeing, as Wheare suggests, independence and coordination. At the same time, a structural inadequacy of the fiscal federalism model, based on the assumption of the tax autonomy of each level of self-government, would be overcome. In reality, the application of this model has given rise to a competition between central and lower levels of government in the field of taxation that, faced with the insurmountable limit constituted by citizens’ ability to pay, can only reach a point of equilibrium with the subordination of the weaker level to the stronger one.

13. Institutions supporting tax decisions in a federal structure

The existence of institutional mechanisms that provide for the participation of all levels of government in decisions concerning the allocation of resources is a fundamental guarantee to avoid that the higher level decides and the intermediate bodies have to suffer decisions imposed from above – as happens in Italy – or that the lower level, i.e. the constituent units, has substantial power and the Union does not have an autonomous fiscal capacity – as happens in the EU. But decisions on the allocation of fiscal resources and borrowing capacity must be backed up by efficient technical support to ensure that they are feasible, equitable and provide an appropriate fiscal stance to support sustainable development for both the centre and lower levels of government.

A model for the function of proper revenue sharing between the centre and the periphery is provided by the Indian Finance Commission,⁵⁴ which “is a Constitutionally mandated body that is at the centre of fiscal federalism. Set up under Article 280 of the Constitution, its core responsibility is to evaluate the state of finances of the Union and State Governments, recommend the sharing of taxes between them, lay down the principles determining the distribution of these taxes among States. Its working is characterised by extensive and intensive consultations with all levels of governments, thus strengthening the principle of cooperative

⁵³ A. Iozzo, *Aspetti istituzionali della procedura di adozione del Multiannual Financial Framework: un nuovo contesto per il 2021-2025*, Centro Studi sul Federalismo, Torino, Policy Paper n. 30, febbraio 2018

⁵⁴ Fincomindia.nic.in

federalism. Its recommendations are also geared towards improving the quality of public spending and promoting fiscal stability.”⁵⁵

With regard to borrowing capacity, a useful reference is the Australian Loan Council, in which representatives of the Federation and member states sit. “The current Loan Council arrangements, in place since 1 July 1993, operate on a voluntary basis and emphasise transparency of public sector financing. These arrangements are designed to enhance financial market scrutiny of public sector borrowing and facilitate informed judgments about each government’s financial performance. The Loan Council traditionally meets annually to consider jurisdictions’ nominated borrowings for the forthcoming year. It has regard to each jurisdiction’s fiscal position and the macroeconomic implications of the aggregate figure.”⁵⁶

In the EU a similar set of tasks has been assigned to the European Fiscal Board (EFB), which is an “independent advisory board of the European Commission, whose main responsibilities are: - evaluate the implementation of the Union fiscal framework and the appropriateness of the actual fiscal stance at euro area and national level; - make suggestions for the future evolution of the Union fiscal framework; - assess the prospective fiscal stance appropriate for the euro area as a whole based on an economic judgment, as well as the appropriate national fiscal stances, within the rules of the Stability and Growth Pact; - cooperate with the National Independent Fiscal Councils; provide ad-hoc advice to the Commission President”.⁵⁷

The EFB is composed of a President and four members, and produces each year a report which not only assesses the implementation of the EU fiscal framework, but also highlights any stress points requiring future improvements. A strengthening of the EFB’s tasks with a view to moving towards an effective system of fiscal federalism, assessing a fair and effective distribution of resources and the borrowing capacity of the various levels of government, would therefore seem desirable as part of a reform to give the EU real fiscal capacity.

14. Conclusions

A number of provisional conclusions can be drawn from this analysis. First of all, one of the central points of federalist thought has always been that decisive steps towards the objective of an complete federation in Europe can only be made following the outbreak of a crisis that highlights the inability of national powers to find a way out.⁵⁸ Today, the crisis to be faced is of a global dimension, and is represented by the pandemic. In view of the seriousness of the economic and social situation, and the need to adequately reinforce health systems, the European Council of 21 July 2020 decided to finance an appropriately sized recovery and resilience plan for

⁵⁵ Shri Singh, 15th Finance Commission Chairman available at *ibid*.

⁵⁶ www.directory.gov.au/portfolios/treasury/department-treasury/australian-loan-council

⁵⁷ ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/european-fiscal-board-efb_en

⁵⁸ A fundamental principle of Monnet’s for taking significant steps towards a Union of a federal nature in Europe is that these are only possible when the member states are involved in a stalemate from which “there is only one way out: by concrete and unwavering action on a limited but crucial point, which will bring about a radical change on this point and progressively alter all the facts of the problem” (*Il Memorandum Monnet del 3 maggio 1950*, in M. Albertini, *Il federalismo. Antologia e definizioni*, Il Mulino, Bologna, 1979, p. 286)

European economies – the Next Generation EU – amounting to €750 billion, financed by issuing EU bonds on the financial market. With a view to servicing and repaying the debt, which must be re-absorbed by 31 December 2058 at the latest, it also decided to temporarily increase the share of own resources to 2% of GDP. The decision specifies that “new net borrowing activity will stop at the latest by the end of 2026”, but ECB President Lagarde emphasised in an interview with *Le Monde* on 19 October “the possibility of it remaining in the European toolbox so it could be used again if similar circumstances arise”.

This decision, on the one hand, broke the taboo of the impossibility of debt financing, even in the case of financing investment expenditure (the so-called golden rule) and, on the other hand, paved the way for a reform of the system of own resources intended to finance the European budget. Indeed, the inter-institutional agreement on the multiannual budget, reached on 10 November 2020, provides for a precise set of deadlines for the gradual introduction – according to a pre-defined timetable running from 2021 to 2026 – of new own resources. Following the decision of the European Council to issue securities guaranteed by the European budget in order to finance the Next Generation EU, this represents a decisive step towards the recognition of a fiscal capacity of the Union.

The outcome of this process will require in the coming years a significant exploitation of the political capital of the European leaderships most committed to a federal outcome of the unification process. The acquisition of new own resources for the European budget requires, on the basis of Article 311, a unanimous decision and ratification by the 27 national parliaments, the most complex legislative procedure provided for in the Treaty. Recourse to other articles of the Treaty, in particular Article 116,⁵⁹ has been envisaged with regard to the definition of a common tax base for company taxation. But in any case, even if it is clear that a first step has been taken, it is not possible to think that a European taxation system, and an albeit limited surrender of the tax sovereignty of the Member States, will be achieved without a political struggle whose outcome is still uncertain.

A key objective of the von der Leyen presidency is to achieve the goal of carbon neutrality by 2050. Indeed, around 90% of the resources earmarked for Next Generation EU are allocated to the European Economic Recovery and Resilience Plan and, within this, in particular to the ecological transition which, together with digitalisation and social inclusion, represents one of its three fundamental objectives. Carbon neutrality requires a considerable amount of investment to ensure the transition from fossil fuels to renewable energies, and the success of this policy depends on setting a European-level carbon pricing structure for carbon dioxide emissions and, at the same time, a minimum price for fossil fuels, and on introducing a compensatory import duty, the revenue from which will represent an increase in the own resources available to the European budget. It also presupposes an active common foreign and security policy, especially to advance

⁵⁹ “Where the Commission finds that a difference between the provisions laid down by law, regulation or administrative action in Member States is distorting the conditions of competition in the internal market and that the resultant distortion needs to be eliminated, it shall consult the Member States concerned. If such consultation does not result in an agreement eliminating the distortion in question, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall issue the necessary directives. Any other appropriate measures provided for in the Treaties may be adopted”

relations with the African Union on an equal footing, in order to promote the exploitation of new energy sources on this continent.⁶⁰

In the implementation of the Next Generation EU, the use of a large share of the available resources requires active intervention by municipal authorities, in particular towards increasing the energy efficiency of existing buildings and promoting sustainable mobility. Two important consequences follow from this fact. The first is that the urban structure has to be remodelled according to the neighbourhoods proposed by Mumford, and taken up in the project *La ville du quart d'heure* by the Mayor of Paris, Anne Hidalgo. This requires an urban organisation on a human scale, in which mobility is sustainable, and can therefore exclude the use of fossil fuels, as essential services can all be reached on foot or by bicycle within a quarter of an hour. The second consequence is financial and institutional. In order to support the huge amount of investment that needs to be made at local level, a reform of the structure of taxation needs to be initiated with a view to practicing fiscal federalism at three levels: municipal, national and European, and to achieving effective coordination between the different levels.

Decisions on taxation should be taken with the involvement of all levels of government, with mechanisms that define a fiscal plan at the beginning of each parliamentary term and on this basis the Council and Parliament will then define the annual budget, by qualified majority voting and without the need for ratification by national parliaments. This will create a true federal set-up, where the interests of the Union as a whole and of the individual Member States are represented on an equal footing. Ultimately, in order to achieve the ambitious objectives of the Green Deal and the Next Generation EU, reforms of the institutions in a federal direction must be carried out at the same time – in order to guarantee an active role for the Union in promoting the recovery of the European economy and in favouring the transition to a new global equilibrium – but also of the structure of taxation at the various levels of government, inspired by the principles of fiscal federalism.

⁶⁰ A. Majocchi, *A Green New Deal for Europe and Africa*, in A. Majocchi (ed.), *Europe and Africa: a Shared Future*, Peter Lang, Brussels, 2020, pp.75-91

CENTRO STUDI SUL FEDERALISMO

Piazza Arbarello 8

10122 Torino - Italy

Tel. +39 011 670 5024

info@csfederalismo.it

www.csfederalismo.it