Financing sustainable investments: national and subnational considerations for building back better

G7 background paper

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June 2021

Abstract

Public investment is a critical element in the recovery from the COVID-19 pandemic and presents an opportunity to address commitments under the Paris Agreement in many G7 countries and also tackle **longstanding structural imbalances**. Notable initiatives include the UK's levelling up policy; addressing spatial imbalances in Italy; and modernising the crumbling and inefficient infrastructure in the United States. The pandemic has highlighted the way in which cities are organised and the quality of infrastructure and services, including health care; where people live and how they travel to work; and where businesses are located and their use of technological innovations. The **political economy of the reforms matters and ensuring employment at a living wage is of great importance**, as well as supporting those who have lost their jobs as a result of the pandemic or technological transformations, and those who are unable to participate in the labour market due to age or disability.

The IMF has correctly emphasised efficiency and transparency in public investment (Schwartz et al., 2020). However, it is important that project selection **be based on consistent valuations of human, natural and physical capital** and use **an appropriate discount rate** (Stern and Stiglitz, 2021). The same considerations should drive financing and choice of tax instruments and directions of reform, since these will govern incentives facing workers and location decisions by firms, as well as environmental and fiscal sustainability. **The spatial and multilevel finance dimensions of public investment are also crucial,** although often overlooked, especially in lagging regions. The latter have a major impact on employment generation, overall inequality, and incentives facing lower levels of government.

Interactions between national and subnational public finances are central to driving incentives, directly funding infrastructure and services, and setting the stage for sustainable access to

[1] Helpful comments from Giorgio Brosio and Hans Peter Lankes on an earlier draft are gratefully acknowledged, as are discussions with Amar Bhattacharya, Nick Stern, Josue Tanaka and Vito Tanzi. All errors are mine.
This background paper informs a report led by Nick Stern, *G7 leadership for sustainable, resilient and inclusive economic recovery and growth: An independent report requested by the UK Prime Minister for the G7*. To read the report visit https://www.lse.ac.uk/granthaminstitute/publication/g7-leadership-for-sustainable-resilient-and-inclusive-economic-recovery-and-growth/

borrowing and private finance. Full disclosure, on sources and uses of funds and buildup of assets and liabilities, is essential for accountability and responsible governance. Since not all countries have performance budgeting systems in place, and in many federal countries it is not easy to impose reporting standards on lower levels of administration, there may need to be a greater emphasis on utilising national earmarked transfers linked to monitorable (green) outcomes. Many of the investments will likely take place in cities and states/provinces, and it will be important to strengthen sub-national capabilities and accountability to service liabilities through stronger 'own-source' sub-national taxation. Utilising internationally comparable balance sheets, including the IMF's GFSM2014[2] standards, becomes critically important, especially in evaluating the buildup of liabilities across jurisdictions. This will guide the balance between tax and borrowing in the medium term, as well as risk-sharing between the public and private sectors.

[2] Government Finance Statistics Manual 2014. https://www.imf.org/external/np/sta/gfsm/

I. How to make ‘levelling up’ or ‘building back better’ work better

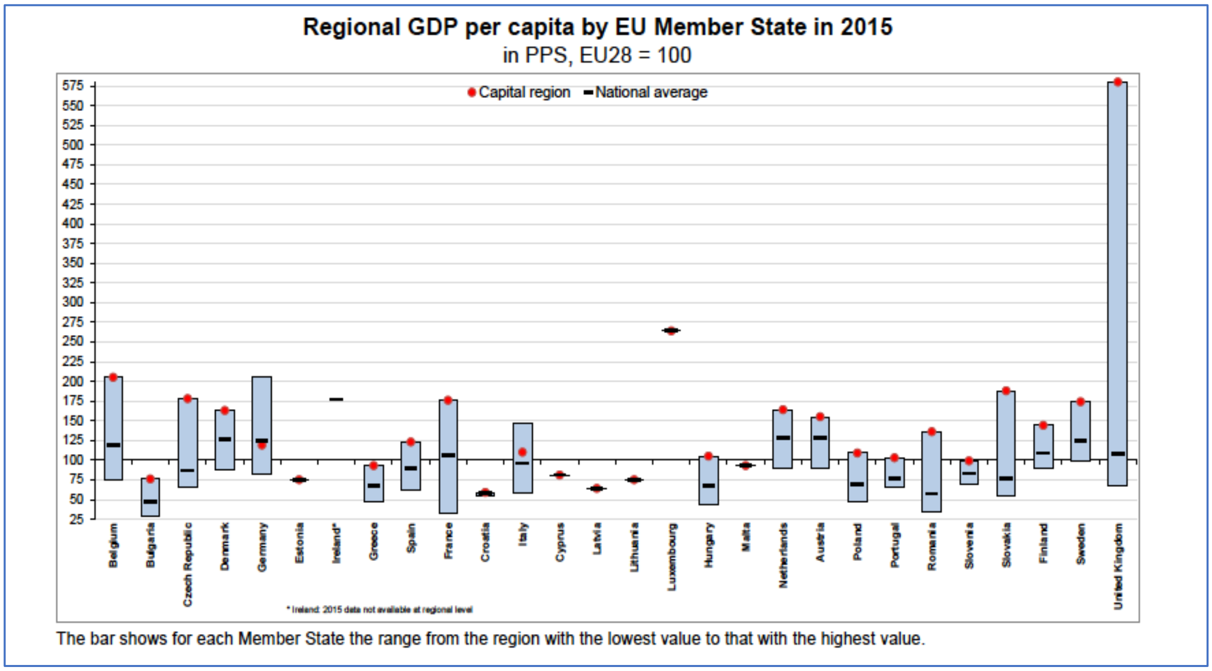
The recovery from the COVID-19 pandemic is closely linked to the local ability to manage and finance the required additional spending at different levels of government, including basic infrastructure and public services. Central government coordination and additional financial support are essential during the pandemic recovery period. The strict fiscal responsibility and subnational balanced budget rules in place in many countries, including the US and EU member states, will need to be reconsidered. Blanchard and Zettlemeyer (2021) argue for fiscal standards to replace fiscal rules, reflecting an earlier complaint by former IMF Director Vito Tanzi (2018) that “responsible countries do not need fiscal rules, irresponsible ones will ignore them”. Different G7 countries have dealt with the fiscal rules differently. While many jurisdictions will need to borrow to finance the investments, strengthening of the revenue bases of the relevant levels of government over the medium term is needed to prevent future debt crises.

One of the main objectives of an inclusive and sustainable investment strategy **is to create jobs and improve living standards in lagging regions for a just transition with overall reductions in carbon emissions.** In many G7 countries, **the gap between large metropolitan cities and lagging regions has increased significantly over the past quarter of a century or more, and this imbalance is likely to be of increasing concern in the wake of the pandemic.** The building back better agenda, or ‘levelling up’ in the UK, presents an opportunity to create well-paying jobs by closing the gaps across regions, reducing emissions by restructuring buildings and transport in metropolitan areas, and generating sustainable employment in clean, compact and connected cities, especially in the lagging regions.

Metropolitan areas have generated sprawl, given the popularity of private financing of infrastructure by developers or ‘land value capture (LVC)’**,** given rising property values. This has led to **increasing congestion, traffic and pollution,** as well as a need for cleaner but expensive connectivity infrastructure – including metro lines and train links connecting sprawling suburbs to places of work and entertainment in the metro area. London is an excellent example of this phenomenon – and London has the highest differential vis à vis average regional GDP than any capital region or metro area in Europe (Chart 1), and huge connectivity infrastructure requirements. Crossrail in London, the UK’s biggest infrastructure project in recent years, was partially funded by LVC, but also a surcharge on business rates as well as financing from central government. It is delayed and has exceeded budget. Crossrail-2 has been cancelled, and the government is focusing on ‘levelling up’, with improved connectivity to lagging regions (the North East, Wales and the Midlands, which have fallen even further behind London) –see Chart 2 (HM Treasury, 2021).

Three additional considerations relevant for building back better might be drawn from European experience with connectivity infrastructure to address regional imbalances, especially since the 2008 financial crisis.

Chart 1

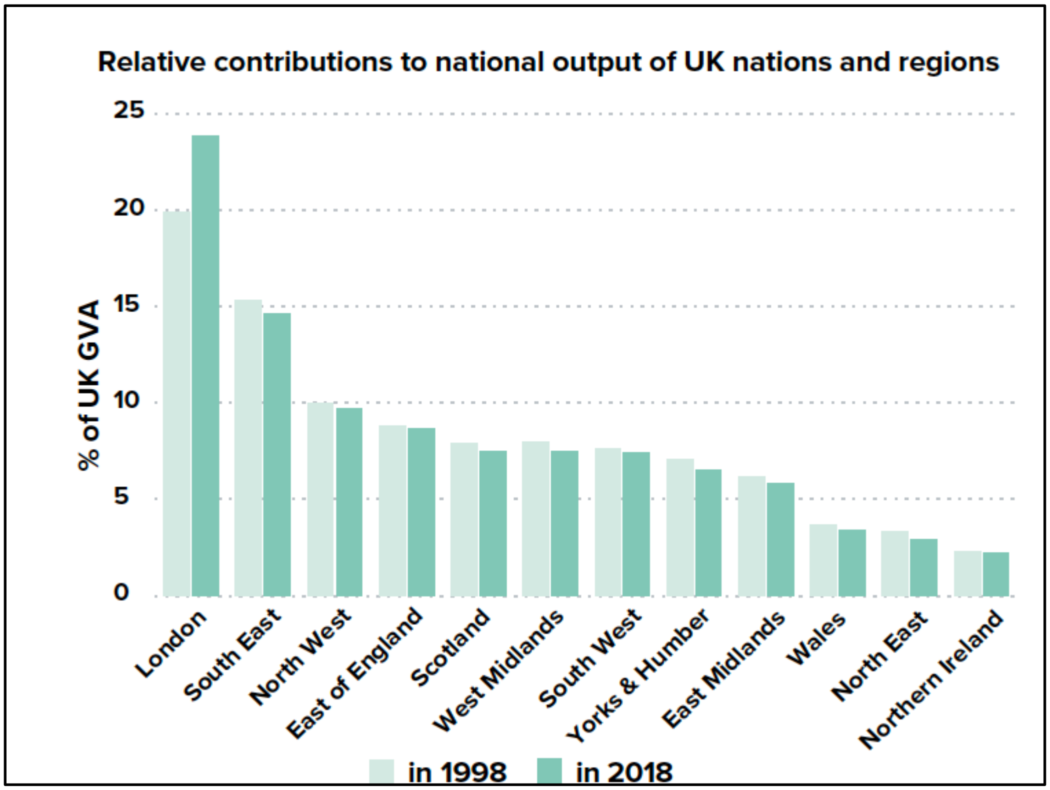


Source: Eurostat, 2017.

First, private financing of infrastructure, even without public guarantees, does not ensure that a recourse to public funds will not be needed as a result of an economic shock. This was the case in Spain post 2008/9, where non-performing loans (NPLs) associated with lending by regional *cajas* for local development projects contributed to a banking crisis requiring a bailout from the central government. **PPPs in many cases, without adequate recognition on local balance sheets,** proved to be yet another source of added vulnerability as local governments and firms sought to disguise liabilities.

Second, connectivity infrastructure, while necessary for the uplift of lagging regions, does not guarantee that it will be sufficient to create sustainable employment in the poorer regions of the country. In Italy, for example, the North-South High-Speed Train and Motorway links have not succeeded in reducing the income gaps between regions. Indeed, it just makes it easier for people to travel to where the jobs are – in Milan or Rome, and the South continues to lag behind.

Chart 2



Source: HM Treasury, *Build Back Better, Our plan for growth*, March 2021

Third, it is not sufficient to focus solely on restructuring large metro areas in isolation from other less wealthy regions. Unless sustainable employment is generated in lagging regions, incentives remain for workers to seek employment in the growing metro areas, and the spatial dimensions of sustainable transition are critical. Much depends on adequate levels of public services in cities in the lagging regions, to induce both sufficiently trained workers and firms to relocate or remain. Growth is driven largely by the private sector, although governments at different levels have an important role to play through investments in human and physical capital, and improved quality of public services.

The pandemic is likely to affect urban design in major ways. Because of the pandemic, it is very likely that metro areas with population concentrations will undergo significant transformations in the way that people work and travel. Changed work and lifestyle practices were facilitated during the rescue period by enhanced use of remote connectivity and e-commerce and may lead to permanent changes in work practices. Many of those who are able to might prefer to live in smaller clusters, and walk to amenities, particularly health care and schools, and a great deal can be achieved with increased use of e-commerce. This change in work practices can be positive in reducing health risks and for the environment as fewer people need to drive to work or pack into crowded commuter trains and metros. **However, the changes will have both an immediate and lagged effect on local finances,** and will affect subnational ability to co-finance any major initiatives on infrastructure.

Some of the principal tendencies are the following:

- **Additional health care and social spending pressures:** An immediate consequence of the pandemic is for local governments to **increase spending on basic preventive health care measures, including tracking and tracing and vaccination programmes,** and has often required the assistance and coordination of the federal/national governments. The latter has been easier to manage in countries that have overlapping responsibilities, such as Germany, than others with a much sharper delineation of responsibilities and subnational balanced budget rules.
- **Current revenues of transport authorities have been affected in several metro areas** with reduced exacerbating existing pressures on budgets and operations and maintenance spending, e.g. in London and Washington DC. The problems are more intractable when the transport authorities span multiple jurisdictions, each with their own budgetary constraints. Reduced tolls and fees would affect large metro area transport authorities as well as smaller bodies and private concession holders.
- **The impact on business rates (property taxes) is likely to be felt much sooner than residential property taxes** that are likely to be affected with a lag, as inner-city property prices adjust to the pandemic.
- Unless there **is an efficient fiscal equalisation system in place** (not the case in the US, for example) cities in lagging regions have little scope for expanding either public services or infrastructure.

Metropolitan area authorities often span multiple jurisdictions, e.g. for transport as is typically the case in the US. When these **authorities run into difficulties, the incentives facing individual jurisdictions, that are also under stress, are to pass the buck to other jurisdictions or to higher levels of government.** Risks to commercial real estate are high in the post recovery period, with potential macroeconomic consequences (Deghi and Natalucci, 2021), and serious implications for subnational finances as business incomes and property values take a hit.

A positive recognition in some OECD countries is that public financing of **expensive infrastructure projects in large metropolitan areas might be better utilised in projects and programmes for sustainable employment generation in less congested cities in lagging regions.** This is reflected in the UK's cancellation of Crossrail-2, and in its emphasis on 'levelling up' to the Midlands and North East (see Chart 2).

Public policy and multilevel finance are critical in establishing the new sustainable employment hubs, especially in lagging regions, or the typical 'rust belt' in several G7 countries. Responsibilities for the infrastructure and public services might cut across traditional jurisdictions and require some redrawing of boundaries. This must **ensure adequate own-source financing and sustainable access to credit at each responsible level**, to avoid repeating some of the problems highlighted since the 2008 Euro Crisis. This applies also to higher level cross-country jurisdictions, such as the European Commission, that have been given new responsibilities to issue bonds for the recovery (see below), but also additional shared revenues, and a tax handle over which the jurisdiction has some control.

The appropriate design of tax handles, with some control over rate structure at the margin, say piggy-backs on the income tax, or on a carbon tax which directly influences environmental outcomes, are important for accountability and also help to finance the needed additional spending through access to borrowing and private sector financing. Similarly, full information on the balance sheets of the relevant jurisdictions is important, including for any access to direct borrowing or PPPs.

A coordinated multilevel approach to public policy is critical in the creation of sustainable employment hubs. But countries are constrained by constitutional and administrative practices.

II. Multilevel finances in recovery and building back better: Germany and the US

Germany and the US are both Federal States, but the **contrasts in powers and responsibilities are quite striking.** Germany has a system of overlapping responsibilities that gives the Federal Government powers to take decisions that affect the Länder (states) and local governments/cities. This was seen in the response to the pandemic, where the German Federal Government acted quickly to support local governments at the outset. Attempts in Germany to move towards the US intergovernmental model of 2004–08 largely failed.

The US States are sovereign and maintain a strict division of responsibilities. Republican administrations have been champions of State rights. This actually helped when the Trump Administration pulled out of the Paris Agreement, but major states and cities continued with their environmental efforts. But unlike in any other G7 country, the US Government cannot require masks or order a shut-down in any state or city (outside Federal offices).

The recovery from the pandemic, and the path to recovery, require additional financing, and counter-cyclical fiscal policies and accommodating monetary policies have been adopted in every G7 country. But the **big challenges relate to how balanced budget rules in the US, and strict fiscal rules in EU countries will adapt to the requirements of the build back better agenda.**

German federal constraints

In Germany, a **rigid debt-brake was introduced in the wake of the 2008 global economic crisis through a constitutional amendment (and this was also adopted by the EU)**. This was appropriate at the time, given that German Länder lacked own-source revenues and relied on Federal shared revenues and transfers. Also, property tax revenue for municipalities is much lower than in the UK, US or France. While the debt brake was introduced in a phased manner, there was **a concern that it would stifle investment** (Milbradt, 2015). It was **suspended at the outset of the pandemic in 2020**. At this stage, it is not known whether the debt brake would be reinstated at the end of the pandemic rescue, or the nature of its replacement if any for the recovery period.

However, following the 2008–10 global economic crisis, **a significant structural reform in Germany led to standardisation of tax administration process and procedures across the Länder, approximating a national tax administration** (Benz and Sonnicksen, 2018). This accompanied the transformation **of the Federal Transfer system towards fiscal equalisation principles** (building on Scandinavian and Australian models). Together with **special purpose grants from the Federal government**, there were sufficient tools to address the pandemic in a coordinated manner and will also provide the political economy assurance of offsetting gainers and losers as a result of the sustainable fiscal reforms for the recovery. This will make it easier to introduce new tax reforms at the subnational level, including a piggy-back on a national carbon tax or the income tax to finance the new investments needed for the recovery. **These options could be developed in tandem with the likely reforms to the responsibility legislation.**

The US Federal-States balance

The **US Federal Government cannot change State Balanced Budget requirements**. These are written into the legal framework in most states. The States have maintained autonomy through their **own-sources of revenues** (mainly piggy-backs on Federal income and corporate taxes administered by the IRS), and city level property taxes and user charges. At times of emergency (usually natural disasters) the Federal Government steps in with targeted assistance to states or local governments, or directly to recipients. **There is no system of fiscal equalisation** – that is now standard in most OECD countries (although operating models differ). There has been a long-standing tussle between the proponents of the supremacy of states' rights and the markets, and the coordination needs in a modern multilevel state in an interconnected world (see e.g. Deaton, 2020).

Even before the pandemic, the **Federal Government had tried to influence policies under the jurisdiction of State Governments by providing earmarked transfers** directly to bodies or institutions that might otherwise have been supported by the State or local governments. An example of this was the Bush Administration's *No Child Left Behind* programme, which provided support directly to schools. However, given the poor reporting of subnational operations to the Federal Government, the assistance was made conditional on easily monitorable performance. **Initially this support for education was made conditional on outputs (standardised test scores) rather than outcomes** (educational attainments and skills), and **this distorted incentives without significant improvements in PISA[3] rankings.** Unlike other G7 countries like France, and the UK (and Australia outside the G7), **the US has not yet moved to a performance budget framework.**

The $2 trillion American Jobs Plan (31 March 2021)[4] presents the most ambitious infrastructure and employment programme in a generation. It incorporates many aspects of building back better, including investment in clean energy, electric vehicles (EVs) and transport infrastructure, ports and airports, environment, high tech, housing and schools, education and health, water and clean energy, R&D and addressing lagging regions. **This is a major shift from the usual approach of offering grants to States and Local Governments,** for them to take up if they wish. While details of programmes and modalities are not yet known, the White House has indicated a **greater use of performance-based special-purpose grants for programmes at the state and local level,** as well as for indigenous communities.

The American Jobs Plan financing proposal is through additional *Federal general taxation* of a roughly equivalent amount (projected at $2 trillion). Although some smoothing is envisaged over the programme period, the American Jobs Plan is a major break with the orthodoxy that has prevailed since the 1990s: that infrastructure projects should be financed by user charges and borrowing that might involve direct loans, bonds or arranged through PPPs (it is often overlooked that each of these alternative financing mechanisms has budgetary implications for payments of liabilities in the medium term and needs to be reflected in public sector balance sheets). The America Jobs Plan recognises **that infrastructure deficits encompassing environment, skills and technology, and health needs represent urgent national priorities, and thus should be reflected in the budget, not passed on to other levels of government or future generations.** However, since the tax measures are envisaged

[3] PISA is the OECD's Programme for International Student Assessment.
[4] The White House, March 31, 2021, www.whitehouse.gov.

to come into effect over a longer period, there will be a need for some bridging finance, but this should not necessitate a substantial increase in interest rates that would crowd out private investment.

As the US does not have a VAT that would not distort investment decisions, the **focus is on Corporate Income Taxes, tax shelters for the wealthy, and tighter IRS audits of corporations.** Many of the measures are predicated on closing loopholes introduced by the Trump administration for fossil fuels, or those that benefit the richest groups. The restoration of the 28% Corporate Income Tax Rate from 21%, and measures to prevent base shifting to tax havens with **a global minimum tax on corporations**, should not have a significant impact on private investment potential.

If the American Jobs Plan had been primarily financed by **borrowing, the envisaged magnitude would have led to some crowding out of private sector investment.** Also, the likely higher interest rates would have been much more damaging to emerging market countries, given the relevance of the US in the global financial markets.

The America Jobs Plan refers also to the gap in budget processes between the US and countries like the UK and Australia that have moved towards performance budgets. **The difficulty in the US following the UK (or French) performance budgeting models is the nature of the US Constitution.** The Federal Government cannot require States or local governments to comply with standardised reporting frameworks needed for performance budgeting. Unfortunately, bodies tasked with intergovernmental coordination have also been dismantled over the past couple of decades. Yet, given the precedence of programmes in the 1960s, and the No Child Left Behind programme (introduced under a Republican administration), it is possible to **design Federal earmarked transfers that will largely be implemented at the local level. Instalments could be made contractually, contingent on achieving readily monitorable outcomes or milestones and providing requisite data to support this.**

In many respects, the American Jobs Plan 2021 increases the Federal Government's role in addressing the recovery, meeting urgent climate change objectives, and perceived strategic shortcomings, and moves the US closer to the German model. It is clear also from the pandemic rescue that Federal/central policy coordination and logistical and financial support are essential. This applies equally to the recovery stage.

III. Strengthening the role of the European Commission

There are **significant differences between the US and EU countries in terms of the starting point for rescue and recovery.** Several of the elements in the US Jobs plan are already part of the Social Contract in many EU countries, and thus part of automatic national responses. However, the **€750 bn Next Generation EU programme is about investments to transform the economy**, create well-paying jobs and create sustainable opportunities, and is designed to supplement the regular medium-term European Commission (EC) budget.

Having learnt from the 2008–10 global economic crisis, the Next Generation EU **recognises the need for coordinated actions at the EC level.** This is designed to focus on cohesion, resilience, natural resources and the environment. Of this, the Recovery and Resilience facility of €672 bn is to provide loans of just over half (€360 bn) and the rest in grants, including assistance to the most backward regions. The financing is largely through bond issuance, unlike the US Jobs Plan.

In a big departure from the past, the Next Generation EU draws on **the principle that each 'responsible' layer of government[5] that is able to access financial markets must have own-source revenues** (i.e. over which they have some control at the margin [see e.g. Ambrosanio and Bordignon, 2015]), in addition to own-revenues, or shares of national taxes that are used to fund the EC. This would be based initially on taxing plastics, and work is underway to examine additional tax assignments. The idea is to enable the EC to be able to finance the borrowing for Next Generation EU over the medium term, but also that the new tax assignments should be in areas that generate cross EU externalities, such as relating to emissions and pollution.

It is important, however, to ensure that the investments under Next Generation EU do not repeat the errors of past initiative that led to increasing spatial inequalities within countries and across the EU. And a key lesson from the cross-country experiences is that while clean transport and connectivity are necessary, these will not reduce incentives for spatial inequality unless there is improvement in public services and governance in cities in lagging regions. Local tax-benefit linkages, together with fiscal equalization, are likely to be necessary, in addition to greater transparency and standardised reporting of operations and liabilities, e.g. using the IMF's GFSM2014 standards for balance sheet information at all levels of government.

[5] Typically, the theory has applied to sub-national governments (Ahmad and Brosio, 2006), but as seen in this case, the principle applies also to supranational governments such as the EC.

IV. Some policy lessons across the G7 and for other systemically important countries

There is a need for **a significant expansion of public investment in all countries to address the recovery from the COVID-19 pandemic and also to meet the ambitious targets for environmental reforms and commitments under the Paris Agreement, and likely revised targets to be discussed at COP26.** It is important that the investments are well coordinated at the national/supranational and subnational levels, with appropriate weights on natural, human and social capital in addition to ensuring fiscal sustainability over the medium term. This leads immediately to a coordinated national and subnational tax and transfer agenda, with sustainable access to market-based financing in most cases, anchored by the development of own-source revenues at 'responsible' levels of government.

While connectivity investment in clean transportation is necessary for a sustainable transition, it must be accompanied by fiscal reforms at the metropolitan/city levels. This should be aimed at reducing sprawl, congestion and pollution. However, it is not **sufficient to just focus on large cities, or connectivity infrastructure in isolation**, as has so often been the case in the past. This is almost certain to lead to urban sprawl, and spatial inequalities with lagging regions. Employment generation in lagging regions is critical.

A **coordinated approach should cover several interrelated areas**:

- Living wage sustainable jobs, including in lagging regions. This will be largely driven by the public sector, although both national investments and local public services and infrastructure are critical elements of the enabling environment.
- Clean transport and infrastructure for EVs
- Investments in broadband and big data
- R&D and innovation
- Restructuring homes, offices and schools in the wake of the pandemic
- New urban design and local services (where possible – not straightforward in federal countries like the US, or even unitary states like Italy or France)
- Support for those not able to participate in the labour market – the elderly, disabled and children

Coordination across levels of government:

- Synchronised policies in unitary states and where there are overlapping responsibilities (like Germany), with adjustments in equalisation transfers as well as earmarked transfers
- Direct provision by the Federal Government (US), or earmarked (perhaps performance-based if the public financial management systems are strong enough) transfers to implementing bodies and organisations, as well as to individual beneficiaries (CARES Act 2020)

Financing

A tax system consistent with a sustainable investment and spending agenda should not only raise revenues, but also generate the appropriate incentives for structural change, by discouraging consumption and production of 'bads' and addressing distributional requirements. There is considerable scope for additional tax measures, with G7 countries learning from each other's experiences.

In most countries, **a VAT would provide significant revenues, create a level playing field without discouraging investment, and generate information that would help prevent leakages in the income taxes as well as 'base shifting'.** It is desirable to keep the VAT as simple as possible with relatively few exemptions and as broad a base as possible. Splitting the VAT base across subnational levels of government, even if harmonised, adds to the cost of doing business and should be avoided. It is politically difficult for a country like the US to introduce a VAT as that would replace state-level sales taxes. The Australian example of VAT introduction joint with the establishment of an equalisation transfer system may be a relevant example for the US in due course (in addition to the performance budgeting experience).

The US-style piggy-backs on the corporate and personal income taxes (CIT and PIT), with national administration, are worth examining for Germany as an element of the recovery package, if the Länder are to become more responsible players in the adjustment programme. Similarly, **a national carbon tax with a state/provincial-level piggy-back has attractive properties** that are broadly relevant in most countries. There is also scope for developing a minimum carbon tax at the EC level to prevent a race to the bottom and better address externalities, with national or local surcharges to reflect local conditions.

Strengthening of the local property tax is also desirable in a number of countries. The efficient valuation and ownership-based US model has not worked well in cases where ownership is more complex to define and up-to-date valuations are not easy to implement. Alternative benefit-linked models simply based on area and location, and often linked explicitly to the cost-of-service delivery, are also options that could be explored in a coordinated programme of recovery.

Fiscal rules clearly need to be suspended during the 'pandemic rescue' period. And in many cases, it might be desirable to borrow and access capital markets to finance some of the investments needed during the recovery period. However, it is important to avoid being sucked into a debt spiral. **Particular care is needed at the sub-national level,** especially if off-budget operations are permitted, and the liabilities associated with PPPs are not recorded in a consistent and comparable manner, e.g. using the IMF's GFSM2014 standards. This proved to be a problem during the 2008–10 global economic crisis in several OECD countries (see Ahmad et al., 2016).

If there is to be access to borrowing, or utilising PPPs, for any level of government, especially at the sub-national levels, there needs to be (a) a credible own-source revenue mobilisation effort to avoid 'passing the buck', as well as (b) full recording of assets and liabilities using internationally compatible (e.g. IMF's GFSM2014 standards) and comparable balance sheets.

Implementation

Given the importance of meeting **employment, environmental and distributional goals during a recovery, it is important to know where the funds are allocated, where they go, how they are spent, and whether the desired objectives have been met.** This is the essence of 'performance budgeting' that the American Jobs Plan (2021) refers to. However, this is not easy to achieve – as was seen in France from the adoption of the legal framework (*Loi Organique*, 2001), to its full implementation during the next seven years. It was only after the 2008–10 global economic crisis that local governments were required to produce balance sheet information. Further, rationalisation of tiers of administration, planned in parallel, has been difficult to implement.

If the proposal to **utilise 'green budgeting' is at all serious in moving beyond window dressing,** it will have to undertake a significant effort to move towards performance budgeting, and require **by recipient agency that** ***budget preparation, execution and reporting*** **adhere to common standards regarding** ***functions, programmes, economic inputs, with clear linkages to outcomes at different levels of government*****.** A huge constraint in large Federal countries is the challenge of getting States/Provinces and Cities to agree on and implement common standards for budgeting and reporting (e.g. the IMF's GFSM2014 standards that also ensure consistency with the National Accounts).

Even if performance budgeting cannot be implemented fully in the short term, it is possible to sequence funding tranches for programmes according to well-designed triggers or outcomes. Care has to be taken to avoid the use of outputs rather than outcomes (learning from the experience of the No Child Left Behind programme in the US).

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