Chapter VI

The Need for Financial Reform for Climate-Aligned Development

Reconciling ecological and developmental priorities

Despite decades of pledges, the international financial system has delivered only a fraction of the financing needed to meet global climate and development targets. To achieve the Sustainable Development Goals and inclusive growth for all, financial resources need to be scaled up in the framework of a climate-aligned development agenda. To accomplish this, two main challenges should be overcome.

First, the roles and modes of engagement for both the public and the private sectors need to be reassessed, in terms of how the sectors participate in and contribute to enabling economic transformation. Second, continued biases in financing, both public and private, often lead to climate goals being undermined, directly and indirectly. This includes the trillions of dollars still supporting fossil fuels.

Within its call for a Global Green New Deal, UNCTAD proposes a range of policy actions to redress the current impasse.

Recommendations

- Pay the public funds pledged for official development assistance and climate finance, ensuring these funds are readily accessible to those who need them.
- Support the public banks and funds doing the heavy lifting by increasing their capitalization and prioritizing long-term investment.
- Develop new models of deployment, and more equitable and effective means of harnessing private finance and commercial banks.
- Cut finance to activities that accelerate the climate crisis and redirect funds to activities consistent with climate pledges. This includes turning off the finance taps for new fossil fuel exploration and for fossil fuel subsidies, while establishing alternative long-term support for low-income and poor households.

A. INTRODUCTION

After more than two decades of global discussions – from the first United Nations International Conference on Financing for Development in Monterrey (2002), to the Copenhagen Accord (2009), the United Nations Conference on Sustainable Development (2012), the Paris Climate Agreement and the Addis Ababa Action Agenda (both 2015), along with numerous Group of 20 gatherings – the international financial system has only delivered a fraction of the financing needed to meet the agreed climate and development targets to guarantee a prosperous and sustainable future for all. Even when finance has been mobilized for longer-term investments in public goods and services, it has rarely flowed to the countries most in need. In some areas it has even been at odds with agreed goals, for example the trillions of dollars supporting increased fossil fuel production. The widening gap in annual investment needed by developing countries to achieve the Sustainable Development Goals currently stands at $4 trillion per year, almost double what it was in 2015 when the Sustainable Development Goals were adopted (UNCTAD, 2023a).

This chapter proposes a series of policy reforms and realignments. It presents a particular focus on addressing persistent asymmetries in the international financial system which, if resolved, could help developing countries mobilize the required resources. The main premise is that climate finance should be an additional and complementary component to development needs. The current negotiations regarding the climate agenda offer an opportunity to harmonize the two.

B. THE UNDERLYING CAUSES OF FINANCING GAPS IN A CLIMATE-ALIGNED DEVELOPMENT AGENDA

1. Private finance and the "missing trillions"

While private capital plays a role in meeting the development goals and the energy transition, the record so far has been disappointing. This is unfortunate as, according to various estimates, the annual investment needed for climate goals and the Sustainable Development Goals is less than 1 per cent of the current value of total global financial assets (around $4 trillion per year). Through a combination of financial innovation, technocratic acumen and decisive political leadership, it should be possible to redirect a portion of those assets into tangible investments to meet climate and development goals.

Private capital flows globally are immense in scale but tend towards short-term gains. Moreover, private sector levels of investment in gross fixed capital formation have been stagnant at suboptimal levels or in decline in most countries for decades. In 1980, private sector investment in developing countries was over 20 per cent of GDP, but has now fallen to roughly 18 per cent, a figure that would be lower still if China was excluded from the calculation. And, as discussed in chapter I, the drop has been most pronounced in advanced economies.

"The annual investment needed to meet climate goals and the Sustainable Development Goals is less than 1 per cent of the current value of total global financial assets."

The structural pressures and policy decisions that lie behind these trends have not received sufficient attention from those making a case for greater reliance on private finance to deliver development and climate goals (UNCTAD, 2019; Gabor and Braun, 2023). For instance, the 2016 *Roadmap to US$100 Billion* for the Paris Agreement expressed confidence in reaching the goal of mobilizing $100 billion per year by 2020 for climate action in developing countries. In its base projections, a companion document anticipated that public sources would provide about two thirds of the $100 billion target while private sources would provide the remaining one third (OECD, 2016).

The public part of the vision was almost achieved. Climate finance for low-income and middle-income economies from the world's main multilateral development banks ($38 billion), public direct mobilization ($8 billion) and public cofinance ($18 billion) amounted to more than $64 billion in 2020. Yet, a closer examination reveals that the figures for the private sector fell short of expectations, as the total private mobilization that year stood at less than $10 billion (African Development Bank et al., 2021: table 23). The calculation of this last figure, however, was carried out using generous interpretations. Under more stringent definitions based on only direct and not indirect cofinance, the amount received was just $3.5 billion. Hence, of a total of $74 billion of funds for low-income and middle-income countries, 87 per cent came from public banks and public cofinanciers. Such a small amount of private cofinancing was never envisaged.

Yet, the consensus narrative and expectations for financing climate and the Sustainable Development Goals have not fundamentally changed in recent years. In line with recommendations of the Group of 20 Eminent Persons Report on Global Financial Governance (Group of 20, 2018), developed countries continued to call for increased public finance to be used as a tool to draw out the elusive private finance outlined in the 2021 Climate Finance Delivery Plan (COP26, 2021). As cited in a UNFCCC Report (2022:101), "All developed countries need to step up efforts to meet the goal, implying the need to scale up public finance". At the same time, the optimism of 2016 is repeated: "The scale of private finance mobilization is not where it was projected to be in the 2016 Roadmap, demonstrating that further efforts are needed to improve the effectiveness of mobilizing private finance from public interventions" (ibid).

Some investment needs or activities will always be unappealing for the commercial or private sector. According to one extensive assessment of the blended finance landscape, "Each $1 of multilateral development bank and DFI [development finance institutions] invested mobilizes on average $0.75 of private finance for developing countries, but this falls to $0.37 for LICs [low-income countries]. Expectations that this kind of blended finance can bridge the Sustainable Development Goals financing gap are unrealistic: 'billions to billions' is more plausible than 'billions to trillions'" (Attridge and Engren, 2019:11). The OECD estimates that development finance institutions have mobilized only $81 billion towards the Sustainable Development Goals through blended finance since 2000 (OECD, 2023), and the mobilization of private climate finance has underperformed against developed countries' expectations by up to 60 per cent (UNFCCC, 2022).

Similarly, the high hopes for green bonds as a powerful source of climate finance have turned out to be unrealistic. UNCTAD (2023a) estimated that green bonds issued in 2022 experienced an annual decline of 3 per cent, down to $500 billion; a tiny addition to the $100 trillion stock of existing regular bonds worldwide (Newell et al., 2023).

Moreover, while markets for green bonds and environmental, social and governance (ESG) investments more generally are growing, the question of additionality is unresolved. Studies show that the risk and return profile of ESG investments is roughly congruent with their conventional counterparts (Jain et al., 2019; Pietsch and Salakhova, 2022), suggesting the majority of ESG investments would have been implemented with or without the ESG label. While there is evidence of a slight cost advantage of green bonds over conventional bonds, it is unclear whether this reflects investors' willingness to pay a "greenium" for such instruments, or a potentially temporary imbalance of supply and demand. However, stronger evidence for a "greenium" on government-issued and investment-grade bonds that follow strict reporting standards suggests that credibility matters (UNCTAD, 2023a).

None of this is intended to diminish the need for scaling up private investment in achieving climate and development goals, but it clearly matters how this is approached, managed and complemented.

2. The forward march of fossil fuel finance continues

One area where finance does continue to be forthcoming on a significant scale is fossil fuels. In 2015 in Paris, all nations committed to substantially reducing global greenhouse gas emissions to limit the global temperature increase in this century. Agreed-upon targets were 2 degrees Celsius while pursuing efforts to limit the increase even further to 1.5 degrees. The Paris Agreement did not mention fossil fuels, even though

they account for 80 per cent of the world's energy supply and have directly caused over 90 per cent of global CO_2 emissions, or 75 per cent of global greenhouse gas emissions in recent years (Hausfather and Friedlingstein, 2022).

In the challenging context of transitioning away from fossil fuels, it is a major concern that funds continue to flow into fresh exploration and new projects, particularly in developed countries, which already benefit from high levels of energy access. A recent study (UNEP et al., 2023) finds that Governments still planned to produce more than double the amount of fossil fuels by 2030 than are compatible with the 1.5-degree target. Against this backdrop, simply subsidizing the production of non-fossil fuel energy infrastructure and supply to tweak relative prices will not be enough to turn off the fossil fuel CO_2 emissions tap.

Today there is a growing policy consensus that any credible strategy relies on a substantial and rapid reduction of fossil fuel finance, extraction, trade and consumption – for which regulation will be key, as voluntary actions can only go so far. At the twenty-sixth session of the Conference of the Parties in Glasgow in 2021 (COP26), more than 40 countries pledged to "phase down coal" (UNFCCC, 2021), backtracking from earlier wording proposing a coal "phase out". A smaller group led by Costa Rica and Denmark established the Beyond Oil and Gas Alliance (BOGA). The Powering Past Coal Alliance provided another pledge, and the private sector also promised to act.

In recent years, most airlines and even oil majors have pledged to become carbon neutral, although academic research stresses existing technological limitations and the need for scaling down such environmentally harmful sectors by about 85 per cent (Nick and Thalmann, 2022; *Bloomberg*, 2023).

At COP26, private financial actors launched the Global Financial Alliance for Net Zero (GFANZ) to better coordinate the $130 trillion of assets under the management of its members across all sectors of the financial system (banking, insurance, asset management, etc.) to accelerate the transition to a net-zero global economy. As the coal, oil and gas sector is highly capital-intensive and fossil fuel businesses rely on external credit and investment, the creation of GFANZ appeared a welcome step, and research commissioned by GFANZ (Lubis et al., 2022) reveals a need to swiftly cut fossil fuel finance. Specifically, the average annual level for the period from 2020–2030 must be halved in order to achieve net-zero ambitions.

Yet, research suggests that finance for fossil fuels is still on the rise, with fossil fuel investments forecasted to exceed $1 trillion in 2023 (figure VI.1). Other estimates of fossil fuel finance that track financial transactions between banks and fossil fuel companies also show that credit extended under the form of loans and underwriting services to fossil fuel companies has not declined.[1]

"Finance for fossil fuels is still on the rise, with fossil fuel investments forecasted to exceed $1 trillion in 2023."

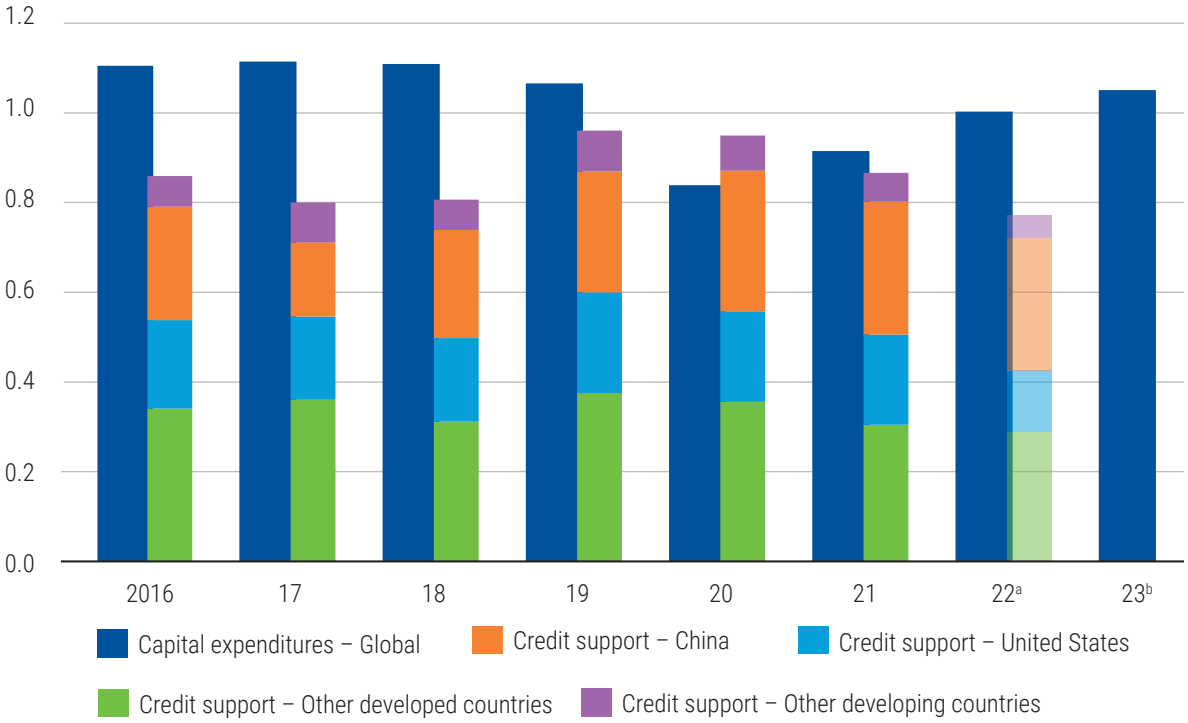
Fossil fuel finance is strongly led by advanced economies. While banks with headquarters in developed countries are responsible for 61 per cent of fossil fuel credit extension, with the United States alone accounting for 22 per cent, credit from China amounts to 30 per cent. All other developing country banks only originated 9 per cent of global fossil fuel credit.

[1] Since 2016, private and public banks have provided more than $5.8 trillion worth of credit for new fossil fuel development projects to companies identified on the Global Coal Exit List (GCEL) and on the Global Oil and Gas Exit List (GOGEL) compiled by the environmental and human rights organization, Urgewald. However, as bilateral credit transaction between banks and fossil fuel companies (only syndicated loans are reported) as well as transactions between MDBs and fossil fuel companies are not included in the data gathered by Urgewald and Reclaim Finance (2023), the estimates presented in figure VI.1 might be seen as conservative. Importantly too, unlike the estimates of the International Energy Agency (IEA) on fossil fuel investment based on corporate accounts and surveys about planned corporate capital expenditure (IEA, 2022, 2023a, 2023b), estimates of the support that banks provide to fossil fuel companies through loans and underwriting services do not include the profits reinvested by fossil fuel companies, which tend to increase in periods of high energy prices.

Figure VI.1 Fossil fuel finance unabated even after the Paris Agreement

Capital expenditure by fossil fuel companies and credit support provided to fossil fuel companies, by country (group) of financial institutions headquarters

(Trillions of dollars)



Source: UNCTAD calculations based on Reclaim Finance (2023); a 2022 update of Urgewald (2021); and IEA (2023a and b).

Note: Urgewald data on credit support (including loans and underwriting services) extended by public and private banks to GCEL companies runs until August 2022, and Reclaim Finance data on credit support to GOGEL companies runs until mid-September 2022. This data was gathered in Bloomberg, Refinitiv and IJGlobal. More methodological details in Warmerdam (2022), https://www.coalexit.org/methodology and https://gogel.org/about-data. IEA global figures refer to capital expenditure on fossil fuel without CCUS and are based on corporate accounts, surveys and estimates.

[a] As credit support data for the year 2022 only extends over 8 months (and not 12), the credit support figures for 2022 have been multiplied by a factor 1.5.

[b] The capital expenditure figure for 2023 is a projection.

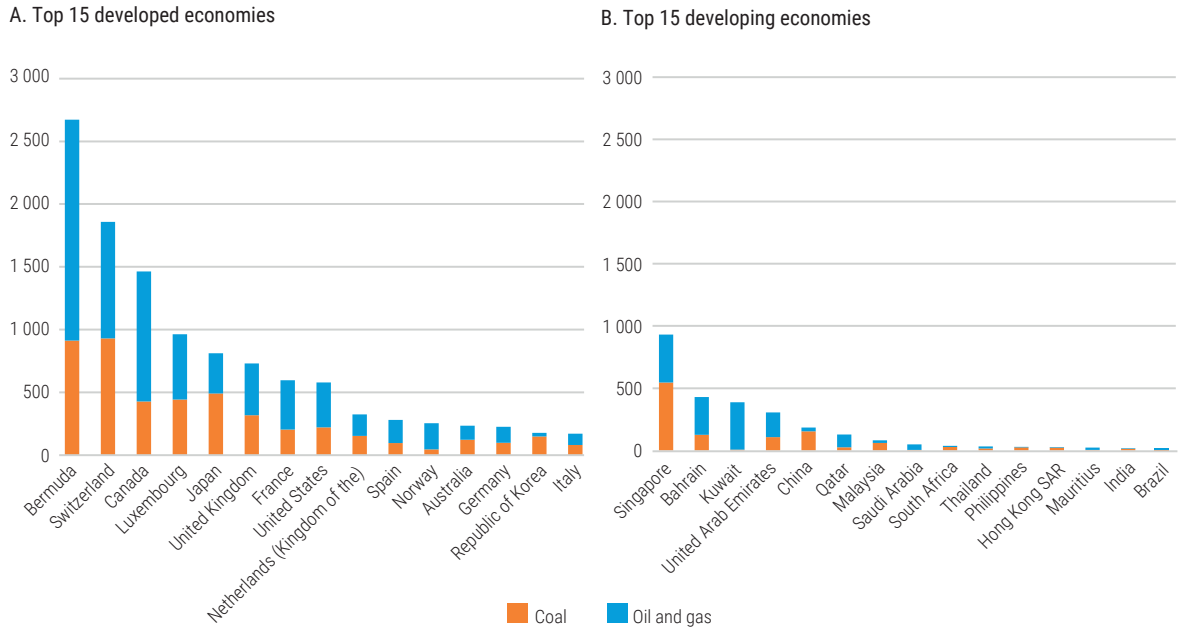
Although the magnitude of credit activities by Chinese banks in support of fossil fuel companies, especially in the coal sector, exceeds any other individual country, the relative contribution of other countries to support existing and new fossil fuel projects is much more significant when viewed on per capita terms. As shown in figure VI.2, in terms of average annual fossil fuel credit activities per capita, those of developed economies such as Bermuda ($2671), Switzerland ($1857), Canada ($1463), Luxembourg ($964), Japan ($812), the United Kingdom ($730), France ($598) and the United States ($579) are significantly higher, compared to those of China ($183). A handful of high-income developing countries, such as Singapore ($930), Bahrain ($429), Kuwait ($387) and the United Arab Emirates ($305), are also high contributors according to this metric.

A comparable gap is evident between the climate goals and pledges of Governments and corporations and actual financing trends, as seen in the petrochemical industry. Petrochemicals constitute a lucrative end-stage of the fossil fuel value chain and the start of a vast global value chain in plastics. Both plastics and petrochemicals are increasingly seen as problematic for global pollution and health. UNCTAD research into loans and bond issuances in the petrochemicals sector shows a significant rise in new transactions each year after the Paris Agreement, rising from $15 billion in 2016 to over $50 billion in 2019. Current total active bonds and loans are valued at more than $250 billion, on top of existing equity holdings (Barrowclough and Finkill, 2021).

Figure VI.2 Mature financial centres most involved in keeping fossil fuel finance alive and kicking

Average annual credit support provided to fossil fuel companies in per capita terms, by economy (group) of financial institutions headquarters, 2016–2022

(Dollars per person)



Source: UNCTAD calculations based on data from Reclaim Finance (2023) and on a 2022 update of Urgewald (2021).
Note: See note for figure VI.1.

While the public sector has generally decreased financial support in line with climate pledges, private finance has driven it much higher. Plastic production has increased sharply: it is seen as an attractive source of profits as other uses of fossil fuels decline. This indicates some of the complexities of the processes of transformation that lie ahead. Moreover, even as finance for the petrochemicals sector has continued unabated, only a small portion is going into "greening" the sector. Out of more than 2,000 active bonds issued by the petrochemical industry with a value of $218 billion, only 20 were designated "green". Their value was just $5 billion (UNCTAD, 2023b).

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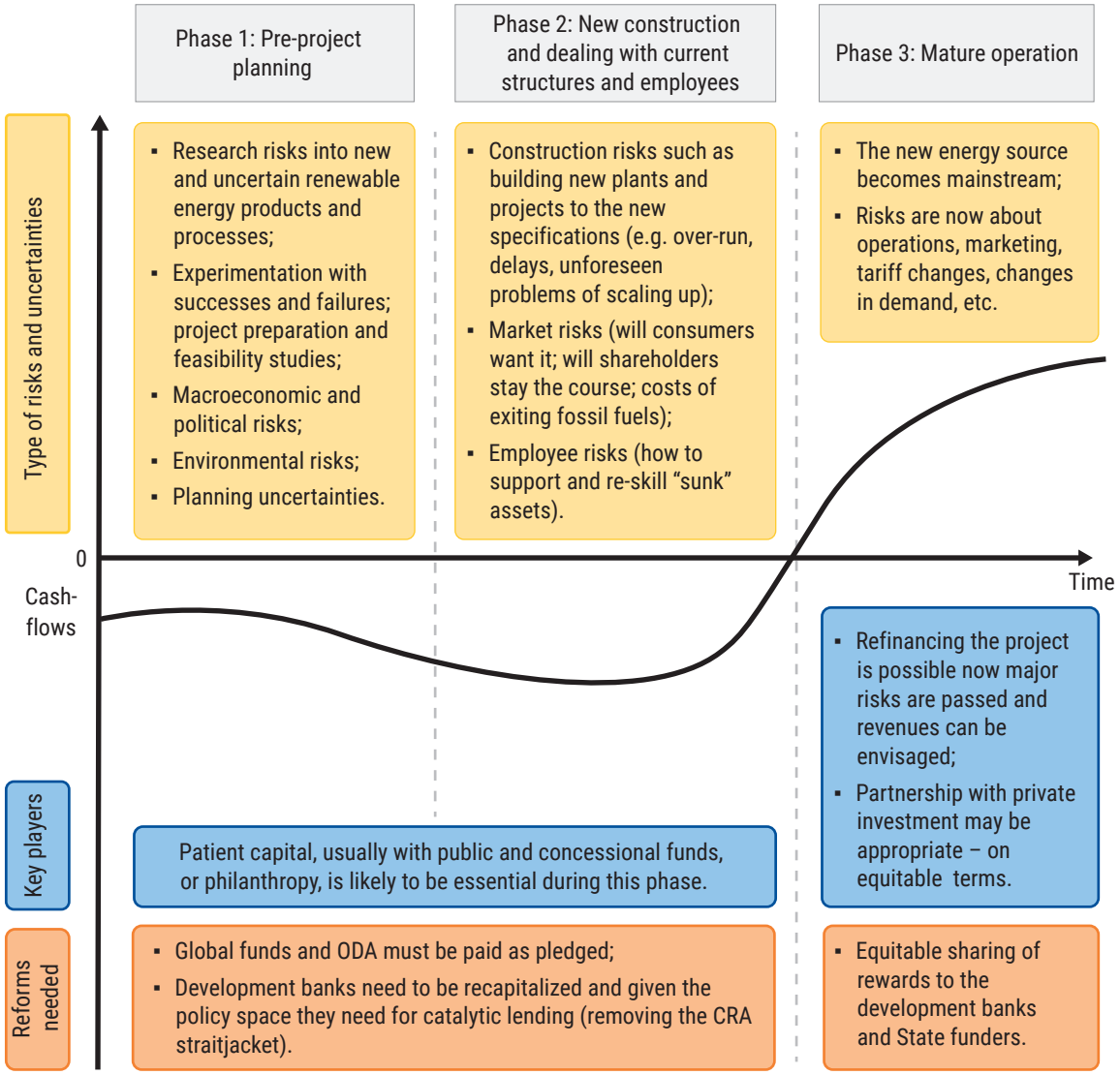
3. The role of public banks and funds in financing the shift to climate-aligned development

The fact that private finance flows into some activities in developing countries and not others is no new concern. It is one reason behind increased support of official developmental assistance, the creation of dedicated global funds and, more recently, for philanthropic sources of project finance. It is also the starting point for a serious reappraisal of public banks, including for development (Stiglitz, 2019; Griffith-Jones, 2022).

As the record of many countries shows, projects that are intrinsically unappealing to commercial banks and private interests, even where capital markets are relatively developed, include those with high upfront capital costs, low and unpredictable revenue flows and a long and uncertain lead time between taking the financing risk and capturing revenues. This is especially the case when the investment concerns something new and potentially risky, as depicted in the area to the left-hand side of figure VI.3, where risks are high and revenues uncertain.

Figure VI.3 The catalytic role of public banks and funds to finance the transition to green projects

Risks, revenues and reforms needed for patient capital to finance the shift to renewable energy



Source: UNCTAD.

Most countries found that it is best to create separate banks to provide long-term capital at near-commercial rates and "policy banks" to provide credit to special areas, such as agriculture or small-scale sectors, where interest rates must be subsidized and grace periods have to be longer. A similar division of labour can be found with international development banks, whether multilateral or regional, which tend to have distinct eligibility criteria for countries seeking access to concessional or grant-based financing windows.

The reason public banks can potentially play this catalytic and patient role is that they tend to be mandated to follow different operating principles compared to commercial banks. In addition, public banks cultivate technical and managerial skills and the ability to coordinate with government ministries as well as private interests (Griffith-Jones and Ocampo, 2018; *Trade and Development Report 2019*; among a growing body of literature on this). Their support can be tailored to specific projects and may last for a long time, requiring these banks to develop appropriate exit strategies for their lending to minimize the threat of capture and abuse of funds. In recent decades, many new banks have been established for this purpose, including several important banks led by developing countries (Barrowclough et al., 2021).

"Revitalizing public banking institutions at all levels will be fundamental to financing a just transition to a zero-carbon world."

Revitalizing public banking institutions at all levels will be fundamental to financing a just transition to a zero-carbon world (*Trade and Development Report 2019*), just as such institutions were crucial for the reconstruction of war-torn Europe (and beyond) at the end of Second World War. This was the task of the International Bank for Reconstruction and Development, better known today as the World Bank, as well as the Marshall Plan, which took on the initial reconstruction effort. Other multilateral development banks were subsequently established at the regional level, such as the Asian Development Bank, the European Investment Bank and others (*Trade and Development Report 2022*).

There are now 45 multilateral development banks with just over $2 trillion in assets in total, the largest being the World Bank and its regional counterparts. Alongside Western-led multilateral institutions, hundreds of national and regional development finance institutions have since emerged across the developing world. Today, there are over 450 of these institutions with total assets of $11.6 trillion which may finance upwards of $2 trillion on an annual basis, representing roughly 12 per cent of total world investment (Xu et al., 2021).

While public banks take on direct responsibility for financing public goods and can substitute for reluctant and impatient private finance in critical sectors, it is also recognized that the latter is usually more forthcoming once the riskiest periods are past, and revenue streams become more predictable, meaning that there is a good chance of making a profit (figure VI.3). Whether and how, and the extent to which this crowding-in takes place, can be a challenge for policymakers. It may be that some larger undertakings are always better done by public finance and remain in public ownership (*Trade and Development Report 2015*). For others, new modalities of risk- and profit-sharing will likely be needed to ensure the balance between public and private is fair and effective, as noted in the bottom row of figure VI.3.

Parts of the climate-aligned development agenda may remain unappealing to private investors because they embody elements of a public good, where earnings could be difficult. Examples of this include investments in climate change adaptation, as opposed to mitigation activities where future revenues may be possible (*Trade and Development Report 2021*), and efforts to control air and ocean pollution (Sustainable Development Goals 3, 11 and 14; Vivas et al., 2021).

These public good characteristics create different and longer-lasting problems for attracting finance from the market and rely heavily on regulations as well as other public sources of finance, such as official development assistance. In some instances, blended finance or the use of public–private partnerships can be used, although as noted in past *Trade and Development Reports* and in a wide range of literature (Matsumoto et al., 2021; Gabor, 2019), with due caution. This will likely only be an option in cases where some revenues and profits are envisaged or where philanthropy is active, such as in the "debt-for-nature" instruments discussed in previous Reports. Policymakers are advised to seek partnerships with an equitable balance of risks and returns.

A related challenge includes examples where historically costly investments have passed into the positive revenue zone and are now seen as problematic for other reasons, as in the case with today's high-carbon activities. Why would firms willingly leave this zone of profitability – with often very high profits – and pursue high-cost/uncertain-revenue investments? The clear answer is that the costs of being exposed to carbon-based activities lies in the future. If shareholders are not already fleeing newly "subprime" assets or pushing for change (Giraud et al., 2019; Caldecott, 2017), firms and investors will not voluntarily divest from profitable activities (Christophers, 2022). In addition, publicly listed firms, pension funds and other institutions may find themselves constrained by institutional rules or obligations, preventing them from taking such actions. What is needed are regulations requiring them to do so; compulsory disclosure of the extent to which firms and funds are exposed; and shareholder willingness to forego profits and make a major shift.

At the same time, it is not the case that public sources of finance have been sufficiently forthcoming – even when these come with pledges and public commitments made by their Governments. Public banks and funds are, in many developing countries, sorely underfinanced for the task.

A key part of the financing challenge facing all countries, and particularly developing nations as they strive to build sustainable growth paths, is how to divest from existing sectors. This is due to the significant social, economic and financial costs that come from halting even unproductive or harmful investments, including those involving ecologically destructive practices. While the "no change" option will also bring costs, these are not equally shared nor are they immediate, for many people. Climate inequalities and injustices mean that it is the bottom 50 per cent of the world who is suffering climate impacts now; the richest decile is (currently) only marginally impacted (box VI.1).

Voluntary divestment and a significant shift in direction are unlikely to happen if there are substantial costs associated with winding down and transforming current industry practices and products. These are highly profitable for some and, as with the case of fossil fuels, today's economies are largely dependent on them, including through existing structures and patterns of production and trade. Stopping the exploration of new fossil fuel sites and reducing existing sites requires winding down and transforming numerous activities. This would impact a huge number of workers who could either face job losses or need to be retrained to access new job opportunities in the green economy (as shown in figure VI.3). Changing course also impacts the value of holdings for pension funds, sovereign wealth funds and other public and private institutions, potentially spreading shocks through the financial system (*Trade and Development Report 2019*). There is a great deal that needs to be in place for this path to be selected.

C. STEPS FORWARD

A more sustainable model is needed. Such a model would successfully mobilize private finance and break the climate investment trap by building a track record of investments through public-led intervention. This, in turn, can crowd-in complementary private investment, including through reinvested profit. Investment decisions by public actors should move beyond a project-level focus to support more holistic roadmaps that can develop low-emissions markets, exceed the critical "renewables deployment threshold" and initiate a virtuous cycle that lowers risk and the cost of capital. International efforts should target the evolution of low-emissions sectors through public investment in infrastructure; strengthening of supply chains; expanding project preparation support and knowledge-sharing; and developing networks of relationships between domestic private actors.

Strengthening policy and regulatory environments will also help to boost total finance flows. Finance flows into wind and solar energy, for example, have been preferentially channelled into countries with strong climate ambitions and renewable policies. Egypt, Jordan and Viet Nam all saw sharp increases in investment following the introduction of renewable energy targets and strengthened renewables policies (Rickman et al., 2023). International efforts can support the expansion of policy and fiscal space to deploy industrial policy tools such as subsidies, tax breaks, guarantees and information tools where developing countries are unable to mount expensive green initiatives on their own.

Developing countries will need to mobilize additional domestic resources to undertake their required investment push. Serious attempts to map the scale and composition of the financing challenge for developing countries often relies on mobilizing increased domestic resources to fill the gap. However, there is little indication of how this would happen, given the current macrofinancial constraints facing most developing countries (Bhattachariya et al., 2020). As suggested above, making better use of the over 500 national, regional and subregional development finance institutions will be critical and will also require significant increases in international support.

1. Scaling up additional public finance

a. Multilateral funding

As discussed earlier, development banks have the mandate to follow social and economic imperatives beyond maximizing short-term profits. They have the capacity to create credit and leverage beyond the funds they receive. They also have access to concessional finance that can be used to lend to other banks and private investors.

However, these development banks are often sorely underfinanced for the heavy lifting required. World Bank lending has fallen steadily over the last four decades relative to the size of the global economy (figure VI.4). This is a problem for climate and development finance because multilateral development banks are still the most important source of long-term finance for some regions and countries (*Trade and Development Report 2022*). In 2020 they provided a record $230 billion. Slightly more than half of their lending is typically concessional with respect to the interest rate charged to borrowers, maturity and other characteristics, compared to commercial lenders and grant-based lending (OECD, 2022).

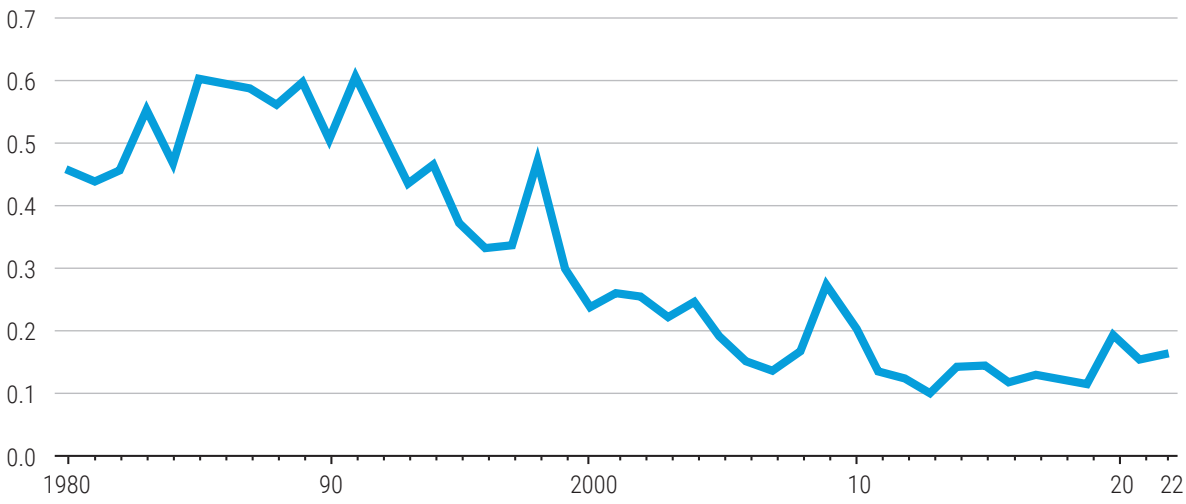
For these and other reasons, the Secretary-General of the United Nations recommends boosting lending by multilateral development banks to 1 per cent of global gross domestic product, from $500 billion to $1 trillion a year (United Nations, 2023), increasing their ability to extend new sources of finance in the form of both concessional lending and grants.

This can be accomplished by increasing the base capital of development finance institutions, expanding their lending headroom and mobilizing capital from the commercial sector. Since the global financial crisis, some of these institutions have made significant increases to the amount of DFI capital in the world economy, but a stepwise increase from these levels is still needed. Leading contributions have come from China, which has increased the assets of the China Development Bank by $1.5 trillion since the crisis, with roughly one fifth of its balance sheet now in overseas financing to sovereign Governments outside China. What is more, China has helped establish two new multilateral development banks: the Asian Infrastructure Investment Bank and the New Development Bank. Many national and subregional development banks in emerging market and developing countries also replenished development finance institutions or created new ones as they accumulated reserves due to the commodity boom in the aftermath of the crisis.

Figure VI.4 The downward slide in global development finance

World Bank lending as a share of world gross product

(Percentage)



Source: Gallagher et al. (2023), derived from IMF data on lending by the International Bank for Reconstruction and Development and International Development Association.

In addition to further capital increases, some development finance institutions have significant lending headroom to provide more financing while continuing to maintain strong credit ratings. Recent studies, including by rating agencies themselves, have estimated that multilateral development banks could increase their lending headroom by $598 billion to $1.9 trillion under various scenarios. Without a capital increase, if multilateral development banks optimized their balance sheets at an AAA rating, the increase ranges from $598 billion to $1 trillion. With a capital increase of 25 per cent by major multilateral development banks, lending could expand by $1.2 trillion to $1.7 trillion. If some multilateral development banks were to optimize at an AA+ rating, expansion could reach close to $2 trillion dollars. Optimizing at AA+ would, however, have a negative impact on profitability, although according to some, the net benefits are still likely to be positive (Humphrey, 2018; Gallagher, 2020). In addition to expanding their lending headroom, some development finance institutions are considering securitizing their loan portfolios, although there are few examples of securitization. Estimates of the benefits and costs of such an approach are mixed at best (Humphrey, 2018; Gabor, 2019).

"Climate finance is perpetuating inequalities that see the poorest regions of the world, such as sub-Saharan Africa, receive only a tiny fraction of climate mitigation investment."

Expanding should also be accompanied by extending. Climate finance, as with traditional development finance, is perpetuating inequalities that see the poorest regions of the world, such as sub-Saharan Africa, receive only a tiny fraction of climate mitigation investment. This is even though they account for about one sixth of the global population. Inequalities are made worse because the vast majority of finance comes from the global North (box VI.1).

The modalities through which multilateral development banks lend to national banks can also impact the synergy between climate and development finance and influence the borrowing capacity of developing countries. The provision of loans in local currencies, as opposed to dollar loans, is one change that can make a big difference for developing country borrowers who face exchange rate risks when exposed to debt in a foreign currency. This is especially notable for fossil fuels, which are priced in dollars. At the same time, if foreign investors take up locally issued bonds, this does not stop the country being exposed to exchange rate shocks if they decide to exit sharply.

Box VI.1 Targeting climate and fossil fuel finance inequalities

In common with unequal access to development finance in general, the countries and communities that are most in need of climate finance receive the least. In addition to their unmet needs for adaptation finance, there is a perverse mitigation effect. As most carbon emissions have been created by advanced economies, targeting these countries to reduce emissions would have the most impact (Chancel et al., 2023). However, halting global warming cannot be achieved unless developing countries also progressively change their carbon use.

Apart from the question of fairness, the fact is that those with the greatest capacity to provide finance are the top 10 per cent of the world's population. This decile causes 48 per cent of global carbon emissions, experiences the least losses, and accounts for almost 80 per cent of the world's wealth. Compare this to the 50 per cent of the world's population that has only 2 per cent of the global total wealth, is causing only 12 per cent of emissions, while registering 75 per cent of losses and damages (Chancel et al., 2023).

Moreover, current investment trends in the fossil fuel sector are only adding to these inequalities. Most finance in the sector is raised from banks in developed countries, and spent by companies with headquarters in developed regions, even if these funds are also used for fossil fuel extraction in developing countries. There is a development tension here. If the investments are used for electrification in developing countries, this could be seen as a way to reduce the energy gap and support economic diversification. On the other hand, certain fuels, whether used directly or indirectly to produce manufactured goods, are bound for advanced country markets. While

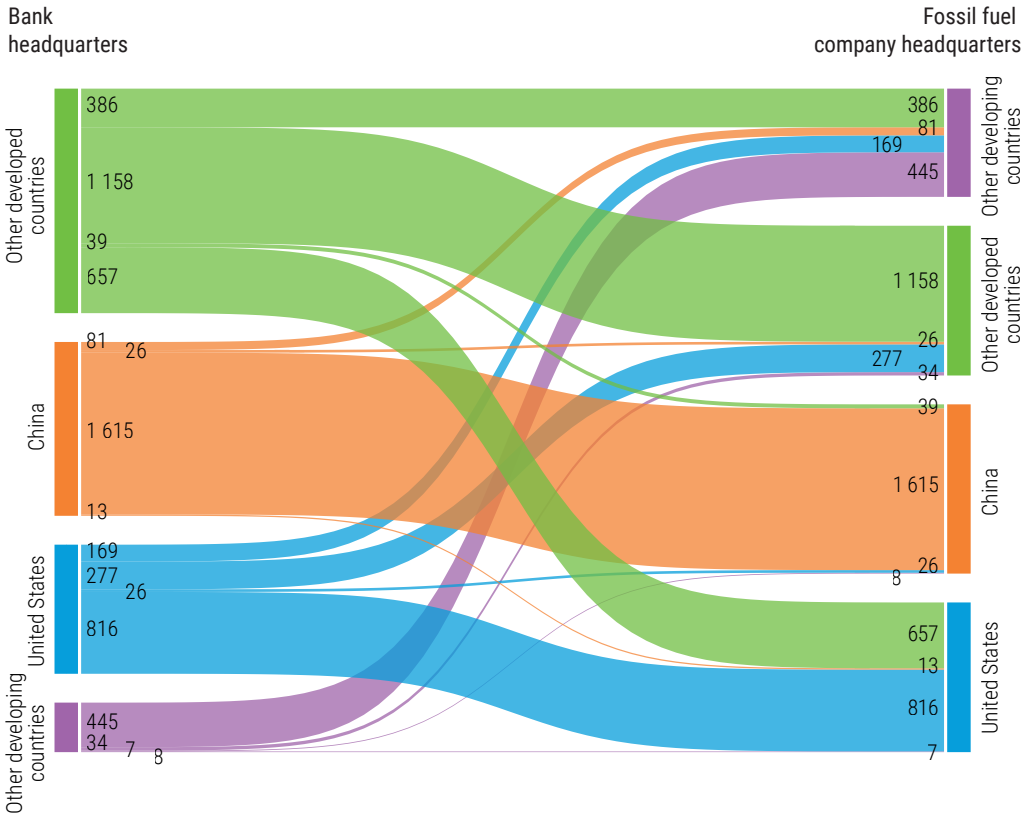
this creates jobs and export revenue, it also exposes these countries to the downsides of hosting coal, oil and petrochemical activities. This includes being hit by trade policies and other regulations targeting carbon emitters.

Banks with headquarters in advanced economies originated 61 per cent of the total $5.8 trillion in loans and underwriting services from 2016 to 2022 (see footnote 1), compared to 30 per cent for China and less than 9 per cent for other developing countries (figure VI.B1.1). On the recipient end, most of the global fossil fuel finance is received by firms whose headquarters are domiciled in advanced economies, with bank loans and underwriting services totalling almost $3 trillion. By contrast, Chinese fossil fuel companies almost exclusively relied on domestic banks to fund expenses amounting to $1.7 trillion. Fossil fuel companies headquartered in other developing countries, however, received most credit support from banks headquartered in developed countries: $555 billion out of a total of just over $1 trillion.

Figure VI.B1.1 Developed country banks originate the bulk of credit support to fossil fuel companies, except in China

Cumulative credit support provided to fossil fuel companies, by country (group) of bank and fossil fuel company headquarters, 2016–2022

(Billions of dollars)



Source: UNCTAD calculations based on data from Reclaim Finance (2023) and on a 2022 update of Urgewald (2021).
Note: See note for figure VI.1.

A similar trend is observed at the petrochemicals end of the fossil fuel value chain, which is the source of fertilizers and plastic (and constitutes 70 per cent of petrochemical finance). Lund University and UNCTAD research investigating sectoral bond and bank transactions found most bond issuances and lending came from advanced economies, with Europe and North America providing the majority of finance designated for activities taking place in developing countries (Barrowclough and Finkill, 2021; UNCTAD, 2023b). During the years immediately following the Paris Agreement, more than one third of total sector bonds and financial transactions flowed from European sources, while a very small fraction, just 3.6 per cent of it, was spent in developing countries.

After the shock of COVID-19, in the year and a half from 2020, some new trends emerged. Notably the Asia–Pacific region became a source of finance as well as a host, as total investment increased sharply; but the general trend, whereby developed countries and regions dominate, continues. European and North American financiers provided $61 billion of petrochemicals credit, with the Asia–Pacific region providing $19.5 billion. Financiers in the Middle East and North Africa region provided $2.3 billion, with Latin America providing $0.7 billion.

This highlights the tendency of modern-day industry and manufacturing to "export emissions" (Kanemoto et al., 2012; Liddle, 2018), a scenario where high-income countries lower their territorial emissions by boosting production capacity in emerging economies. Most of the end-use products are then imported back into the high-income regions while the associated burden of carbon emissions is exported to the countries of production (Scott and Barrett, 2015; Jiborn et al., 2018).

b. Development assistance

Official development assistance is particularly important in filling financing gaps facing developing countries. Of all the sources available, it is the most likely to be provided as grants or at concessional rates and with long-term maturities. This is critical in those areas where private finance is unlikely to flow. Adaptation financing is one such area, given that financing climate adaptation is not likely to generate income-earning opportunities. Augmented official development assistance support will be critical to undertaking the required investments, particularly in developing countries already vulnerable to heightened climate shocks (UNCTAD, 2021).

An immediate challenge is the failure of richer countries to deliver the climate-finance sums they promised at the Copenhagen Summit in 2009. Rather than the $100 billion per annum pledged, the latest figures for 2022 reported by Development Assistance Committee (DAC) donor countries were just $83.3 billion (OECD, 2022). According to the Oxfam Climate Shadow Finance Report (Oxfam, 2023), the accounting methods used overstate even this amount. As in previous years, the Oxfam estimates are to the tune of $21–24 billion. Beyond the figures, the way in which funds are distributed is crucial. It is a concern that only one quarter was provided as grants and the remainder was given as loans, thereby adding to the debt burden of already suffering countries. Moreover, the loans were seldom concessional, with few offered at rates below the market (Oxfam, 2023). The final problem, according to Oxfam, is that one third of the climate fund payments were drawn from existing official development assistance budgets, so they were not truly "additional" funds.

In 2022, official development assistance did increase significantly (up 143 per cent) to $204 billion, reflecting increased spending on humanitarian activities, including support to refugees. Even with this increase, the total funds paid are only 0.36 per cent of DAC donors' combined gross national income, which is much less than the 0.7 per cent pledged by these donor countries decades ago. Just 5 of the 32 DAC member countries spend at or above their pledged target.[2]

[2] See https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/official-development-assistance.htm (accessed on 20 December 2023).

Against this backdrop, raising official development assistance flows should be an integral part of support to developing countries in advancing climate-compatible development paths. A commitment by just those countries making up the Group of Seven to meet the 0.7 per cent official development assistance target would generate an additional $150 billion annually, albeit still at the bottom of the range needed.

c. More active central banks

Central banks are not only at the apex of the national financial architecture but also play a key role in shaping the international agenda. Much can be done to better align their activities with climate and development goals, and indeed to set the rules and regulations for the entire financial system. Some central banks in both developed and developing countries have been implementing climate-related policies to guide and direct finance for several years now (*Trade and Development Report 2019*) and are considered to have made small contributions in greening monetary policy (Dikau and Volz, 2021; Siderius, 2022).

Yet, much more could be done. At the very least, central banks would have to move away from their goal of "market neutrality" for interventions, which in practice means maintaining the status quo, including favouring high-carbon firms over newer or alternative ones. More ambitious interventions would centre on dealing with medium- and longer-term risks rather than short-term crisis abatement, ideally supported by the international group of central banks, the Network for Greening the Financial System (NGFS). This could include monetary policies and regulatory frameworks that would help realign finance with decarbonization targets, including incorporating liability and financial risks into the lending practices of commercial banks to include climate-exposure risks. Such measures would more effectively regulate their lending choices (Schoenmaker, 2021; Boneva et al., 2022).

Some banks already have variable interest rates or reserve requirements for loans that are compatible with the Paris Agreement (see e.g. *Trade and Development Report 2019* for a survey; Simms, 2021; UNCTAD, 2023c). This could be more formalized if central banks and financial regulators integrated specific climate-related (or indeed development-related) goals into their mandates. This might encompass references to limiting global warming to 1.5 degrees, full biodiversity recovery by 2050 and designing transition plans for achieving these targets. Such a change in approach would improve policy coherence. It would enable monetary authorities to better support the fiscal action of Governments for tackling the climate and biodiversity crises and their anticipated negative economic and social impact.

Explicit nominal targets for climate and biodiversity would also enable monetary authorities to adopt a longer time horizon, crucial for navigating the challenging implementation of a just transition over the next decades. Sustained policy support and public investment for consistent implementation over several decades will not be possible based on emergency law and piecemeal action, as was feasible for a comparatively short-lived crisis such as the COVID-19 pandemic. With the absence of such nominal anchors, monetary authorities may keep vacillating between timid support and an outright rejection of considering the environmental dimension of their actions or inaction.

"The 11 largest European commercial banks have fossil fuel assets on their balance sheet amounting to 95 per cent of their equity. If fossil fuel assets were decisively stranded, they would likely go bankrupt."

The World Wildlife Fund for Nature has called for central banks and financial regulators to take on board the principle of tailoring their policies based on scientific considerations and to discriminate against firms whose activities are "always environmentally harmful" (World Wildlife Fund, 2022), such as fossil fuels.[3] Financial institutions investing in, providing underwriting services to or lending to fossil fuel sectors or associated companies could face higher regulatory capital and more stringent liquidity requirements. Furthermore, capital add-ons could be imposed for concentration risk if they fail to urgently reduce their exposure, as well as higher systemic risk buffers. Indeed, the 11 largest European commercial banks have fossil fuel assets on

[3] As an example, a large network of NGOs proposes to consider as "always environmentally harmful" all businesses listed on GCEL and GOGEL as well as businesses active in 13 subsectors identified using the 8-digit Global Industry Classification Standards. See *Call to Action to Ensure Transition to a Net-Zero and Nature-Positive Economy*, WWF (2022).

their balance sheet amounting to 95 per cent of their equity. If fossil fuel assets were decisively stranded, they would likely go bankrupt, raising the question yet again of whether to bail out firms that are too big to fail (Giraud et al., 2021).

A small number of central banks and financial regulators have started making modest steps forward in relation to these policy options. For instance, the European Central Bank discloses the list of its bond holdings by sector and company. The Bank of Finland has committed to making its investment portfolio carbon neutral by 2050 and has set intermediary goals for divesting from coal, oil and gas. The Bank of England, the European Central Bank and the Federal Reserve have started to run climate stress tests, and the Central Bank of South Africa has conducted a survey among banks about the consequences of climate risk. There are many other positive examples. Discussions are ongoing, notably in the context of the Network for Greening the Financial System. Implementation is too slow, however, with a tendency for smaller steps that preserve the status quo rather than bold action (Alliance climatique suisse, 2022).

Such plans are also relevant for multilateral development banks, which remain heavily involved in fossil fuel financing (e.g. Urgewald 2023a, 2023b, 2023c). This is despite calls for aligning their activities with Paris Agreement goals (Group of 20, 2022). Related to this is the way that multilateral development banks interact with national development banks, and how climate finance is linked with development finance – an area where there is still little research. In a recent study of 10 multilateral development banks, only two banks had this as an objective (Marois and Maradon, 2023). Policy changes to help this could include banks codeveloping a clear, simple, and standardized template or set of metrics to track existing financial cooperation. Also, governing boards of banks could require their institutions to meaningfully and transparently report on financing Sustainable Development Goals, as well as the climate reporting that many are now doing (ibid).

Insisting on climate disclosure could be imposed either by central banks or by government regulation. Whichever route is taken, this is needed because voluntary disclosure is not sufficient. This is already happening in some places. The French Energy Transition Law of 2015 mandates listed companies to disclose how climate risks are managed, providing a legislative environment that has accelerated the transition of French banks – including BNP Paribas – away from fossil fuels. Other examples include the stock exchanges of Johannesburg and Sao Paulo, two of the earliest innovators in requiring sustainability disclosures. Standard and Poor's Ratings Services have identified climate change as a key megatrend affecting sovereign bonds. In Brazil, banking regulations require socioenvironmental risk management (UNEP, 2015). Similarly, the Government of the United Kingdom has made it mandatory for the largest businesses in Great Britain to disclose their climate-related risks and opportunities, following the recommendations of its Taskforce on Climate-related Financial Disclosures.[4]

2. New and evolving market-related instruments

Can some of the new market-related instruments help developing countries chart a different path? With due consideration to the cautionary note about the limitations of these instruments, there can be little doubt that crowding-in private finance to a clearly defined transition strategy is important.

Since the twenty-sixth session of the Conference of the Parties in Glasgow, one new model to emerge is the "Just Energy Transition Partnership." Several countries have started or are negotiating these with donor countries and multilateral development banks, including Indonesia, Senegal, South Africa and Viet Nam. The value of these initiatives rests in how they seek to marry the financial and structural challenges that will face many developing countries in the coming decades, and how they highlight the need for a more integrated strategy.

However, more will be required if these partnerships are to deliver the expected developmental benefits. One issue is that the funds provided fall far short of what is needed: South Africa received just $8.5 billion from its five partners (France, Germany, the United Kingdom, the United States and the European Union) yet asked

[4] See https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law.

for $84 billion to help move away from the use of coal. To go even further and achieve net zero, South Africa estimated that $250 billion was needed. Other concerns relate to the terms of the finance, a reliance on loans rather than grants and unclear conditionalities (box VI.2).

Other market-related initiatives, such as the Clean Development Mechanism developed under the Kyoto Protocol, have been disappointing. The larger economies in Asia (China and India) attract by far the largest share of projects and proceeds; sub-Saharan Africa captured less than 2 per cent of the market (Newell et al., 2023). Similarly, the Sustainable Development Mechanism created under the Paris Agreement further shows that market-driven mechanisms suffer the same old problems, in that the poorest and most needy regions and groups are not covered or not at sufficient scale (ibid). Since at least one quarter of the world's carbon emissions are now covered by some form of carbon pricing, international carbon pricing is frequently invoked as the way forward (*The Economist,* 2023).

However, the evidence is not encouraging for a myriad of reasons, distorted market outcomes being just one of them (Krogstrup and Oman, 2019). This distracts from the need for more proactive policy levers to tip the balance of risk and return against fossil fuel assets and towards just transitions.

Another example of innovative instruments involves the growing use of debt-for-nature swaps and debt relief, linked to climate action. There is growing interest in the search for financial mechanisms to induce producers to leave fossil fuel reserves safely in the ground (Muttitt and Kartha, 2020) and to conserve nature more generally. Many debt-distressed countries have fossil fuel reserves that could be used to repay debt. The "swap" concept reverses the equation, suggesting that these reserves could potentially help countries that resist extraction and keep their reserves in the ground. However, debt-for-nature swaps have been criticized for entailing lengthy negotiations, being expensive to establish for little fiscal space and creating challenges with ringfenced financing for environmental activities while other development goals remain underfinanced (*Trade and Development Reports 2019* and *2021*). As well as addressing such challenges, for swap initiatives to be effective, they need to be combined with broader debt relief interventions and expanded financing (UNCTAD, 2019).

Box VI.2 Learnings from South Africa and the Just Energy Transition Partnership

In South Africa, the Just Energy Transition Investment Plan (JET IP) raises concerns that reach beyond the small scale of the funds received and focus on the overall composition of the whole funding package. From the outset, South Africa expressed that it needed to implement a holistic approach to cope with the challenges of energy transition and transformation, given the millions of workers and households dependent on its precarious system of electrification based around mining dirty coal. The country has been experiencing frequent and long-lasting power cuts, with complete lack of electrification for many people. At the same time, it fears the social, economic and employment impacts of change. The Plan highlights a need to invest in retraining and skills development, social support and a path to economic diversification that includes innovation and localization, as well as investment in new forms of climate-aligned infrastructure (JET IP, 2022). However, this ambition is not backed by the actual financing provided by international partners.

According to recent analysis by the Institute of Economic Justice (IEJ) in South Africa, the problem lies not just in the small scale of finance available, but in how the finance is provided. Most of the $8.5 billion is offered in the form of loans (81 per cent) and guarantees (15 per cent). Grants constitute only 4 per cent. There are risks that repayment obligations will compound the already fragile financial position of the country, even if most of the loans are concessional (around $5.3 billion, compared to $1.5 billion in commercial loans, $1.3 billion in guarantees and just $0.3 billion as grants). Other concerns stem from the fact the JET IP model follows so-called "de-risking" approaches typical of blended finance and thematic bonds. While almost 90 per cent of the finances granted are for electricity infrastructure, very little is apportioned for the

"justice" element associated with transitional risks, economic diversification and innovation and skills development, which receive just 0.3 per cent to 0.1 per cent.

Such deals might encourage the privatization of public goods, due to their emphasis on the use of public–private partnerships. Investment through private commercial loans is earmarked for potentially profitable wind and solar energy, but all other elements (decommissioning coal plants, transmission and grid strengthening, distribution and batteries) are considered to require concessional loans from development finance institutions or government support. This may lead to future privatization that will reduce affordable energy access and government revenue sources.

Some of the financial and legal risks associated with the package stem from its reliance on debt instruments and private capital markets that may bring greater exposure to external dynamics and shocks. This is especially pertinent given the contingent reliance on the State for the de-risking part of the partnership. Bringing in external investors who follow foreign regulatory jurisdiction is another risk, as is evident in disputes elsewhere in the world. In the context of South Africa, it is feared this could include tensions with its human rights framework.

Underpinning these concerns is a general lack of transparency about the nature of conditionalities, interest rates, terms, grace periods, State obligations and exposure to the currencies involved in the financing package. Furthermore, important developmental benefits are absent. The plan in its current form only provides minimal support to help develop green industries locally or to meet the social security needs of affected communities and workers. If similar models are rolled out in other countries, this raises the risk of perpetuating an already unstable, unequal and anarchic international debt architecture.

Source: Institute of Economic Justice and Climate Finance for Equitable Transitions (2023).

While central banks and financial authorities need to take the lead by insisting on common instruments, supported by using regulations and not relying on voluntary disclosure, there is an important supplementary role for private forms of (self) governance. The Investor Network on Climate Risk, formed by a group of institutional investors, examines opportunities and strategies for investment in clean energy and climate technologies. Its Clean Energy Investment Working Group involves collaboration between the Coalition for Environmentally Responsible Economies (CERES) investor network on climate risk and the Clean Energy Group. It aims to "develop an ongoing framework within which participants can explore the risks and rewards in making investments and allocating capital to the clean energy sector and other climate-related opportunities" (Newell et al., 2023).

"In the fossil fuel sector, increasing disclosures would help clarify debates about exactly who is financing what."

Such initiatives from both public regulators and private investors are essential because the current lack of disclosure leaves investors in the dark about overstated assets and understated liabilities. This means markets are unable to allocate capital appropriately, undermining efforts to decarbonize the global economy.

In the fossil fuel sector specifically, increasing disclosures would help clarify debates about exactly who is financing what. Differences in estimates for developed country lending and investment vis-à-vis developing countries can be linked to whether underwriting or concessional lending is included (Ma and Gallagher, 2021). Similar research in the energy sector finds that an extremely high share of potential emissions from the world's largest energy firms are controlled by a handful of investors and shareholders, including through major actors such as BlackRock, Vanguard and Fidelity Investments (Dordi et al., 2022; UNCTAD, 2023; Reclaim Finance, 2023). As long as high-carbon remains more profitable than clean energy sources, there is

no incentive for these firms to make a clean energy shift. Requiring them to calculate and disclose their true climate exposures would help ensure shareholders were fully informed about future financial risks. It would also reward those firms that decided to shift.[5]

3. Divestment and redirection of existing funds

Divestment and redirection of existing expenditure have the significant advantage that the funds already exist and do not need to be raised. Furthermore, they automatically "turn off the taps" that are making matters worse. Doing so, and doing it in a way that ensures developmental and equitable impacts of the change, will require a good deal of policy and regulatory support at the international level.

a. Fossil fuel subsidy reform

One of the most visible and challenging examples of where the misalignment of the financial system is damaging both economy and environment concerns fossil fuel subsidies. The scale of public finances flowing into these subsidies is enormous, exacerbating climate inequalities and crowding out other, and potentially much better uses of scarce public funds. The issue is, however, much more nuanced than first appears.

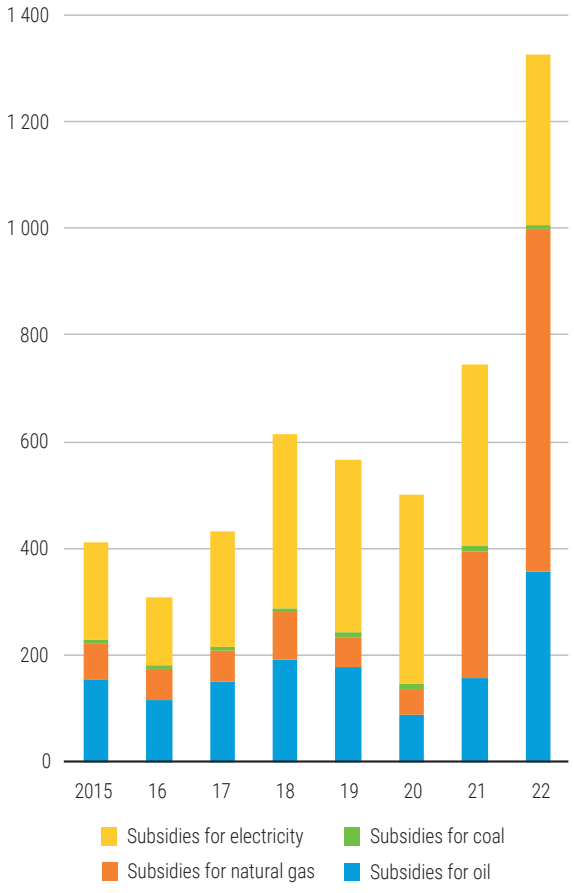
The most recent estimates by IMF argue that global fossil fuel subsidies in their various forms cost a record $7 trillion in 2022, that is, 7.1 per cent of world GDP. This figure is composed of explicit and implicit subsidies amounting to $1.3 trillion and $5.7 trillion, respectively (figure VI.5 and table VI.1). While the former measures the amount that Governments effectively disbursed to reduce both the production cost of fossil fuels and the price paid by consumers, the latter represents the difference between the market price of fossil fuel and their effective cost to society, including negative externalities on health and the environment, as well as foregone consumption tax revenue (Black et al., 2023). The latter, therefore, can be understood as a shadow cost rather than a direct one, but the former represents actual expenditure that could potentially be redirected to other purposes.

Other estimates of the size and scale of subsidies vary depending on the methodologies used. The 2022 figure is admittedly sharply higher than previous years, owing to the energy crisis triggered by the war in Ukraine. The fact is these subsidies remain high even after a decade and a half of multilateral commitments to cut them.

Figure VI.5 Despite years of multilateral pledges, fossil fuel subsidies fly high

Fossil fuel subsidies by fuel type

(Billions of dollars)



Source: UNCTAD calculations based on IMF data as described in Black et al. (2023).

[5] In reference to Article 2.1 (c) of the Paris Agreement, the limitations of current disclosure are considered to be a major impediment.

Table VI.1 Even a small reduction in subsidies would help, as producer subsidies total $51 billion

Fossil fuel subsidies, by type, 2022

(Billions of dollars unless otherwise indicated)

	Implicit fossil fuel subsidies	Explicit fossil fuel subsidies	Total fossil fuel subsidies	Producer fossil fuel subsidies	Producer fossil fuel subsidies (as a percentage of explicit fossil fuel subsidies)
Low-income countries	18	8	26	0	0.0
Lower-middle-income countries	711	224	935	6	2.7
Upper-middle-income countries	3 093	643	3 736	27	4.2
High-income countries	1 887	452	2 339	18	4.1
Global	5 710	1 326	7 036	51	3.9

Source: UNCTAD calculations based on IMF data as described in Black et al. (2023).

Note: Explicit fossil fuel subsidies measure the undercharging of the supply costs of fossil fuels (i.e. the amounts disbursed by Governments for fossil fuel production subsidies and fossil fuel consumption subsidies); implicit fossil fuel subsidies measure the undercharging for environmental costs as well as the forgone consumption tax revenues caused by fossil fuel subsidies.

b. Why and how fossil fuel subsidies must be phased out

Fossil fuel subsidies pose challenges not only due to their magnitude, but their tendency to crowd out other uses of government revenues. Contributing to the issue is how and where fossil fuel prices distort true economic and environmental costs. IMF data including implicit and explicit subsidies indicates a high proportion of these subsidies relates to the coal sector, at $2 trillion, that is, about 30 per cent of the total. Coal is one of the oldest sources of fossil fuels and known to be particularly dirty, provoking widely recognized environmental and health risks. It is also a likely centre for future financial and economic shocks, as coal sector assets lose their value and when the millions of people working in the sector lose their livelihoods (*Trade and Development Report 2019*). Reform of the coal sector is a policy priority in many countries including Indonesia and South Africa, as discussed below.

An immediate challenge with phasing out "inefficient" subsidies is that this category has no coherent or formal international definition. Economists would say that the different types of subsidies are so intertwined it is not meaningful to distinguish some as "efficient" or "inefficient". All are distortionary (and hence "inefficient") even in the narrowest definition of the term. All subsidies artificially lower the price of fossil fuels relative to potential substitutes. This leads to production and consumption that is higher than would otherwise be the case, especially in energy-intensive sectors such as power and transport. The interlinkages between demand and supply provoke a self-reinforcing cycle; subsidies designed to support fossil fuel exploration and production will inevitably encourage not only greater production but also consumption, because they lead to lower prices.

However, outside the abstractions of economic modelling, the impact of phasing out fossil fuel subsidies varies depending on the perspective. In advanced economies, subsidized consumption of fossil fuels may be considered excessive in the presence of alternative sources; in the global South, where alternative sources of electrification and energy are lacking, subsidized consumption may be insufficient to meet the essential needs of households and firms.

If the aim of Governments is to support poor households and reduce inequality, fossil fuel subsidies are not the way to do it. Subsidies often make inequalities worse because they are a blunt instrument that is usually not targeted by income (UNDP, 2021; World Bank, 2012). Even so, the relatively small benefit to the poorest decile can be nonetheless extremely important; it may mean the difference between having electricity or none at all. Such arguments to help poor households (and small businesses) were particularly pressing during the energy price hikes of 2021 and 2022.

Given this background, any efforts to cut fossil fuel subsidies need to acknowledge the complexities and asymmetries of producers and consumers. Stopping the "untold billions" of subsidies (Victor, 2009) has proved

hard to do. One reason is that fossil fuel subsidies have been paid out for decades, and this systemic support over time created an entire ecosystem of big firms, enterprises and interest groups with political power. Lobby groups in the industry spend hundreds of millions of dollars to protect their position (Moser and Ashley, 2014; and others, within a substantial body of literature on this).

Shedding light onto these distributional matters could potentially help support the case for providing support to low-income households in other, less high-carbon intensive ways. At the same time, resistance can come from consumers as well as producers. Events in Morocco in 2015, Mexico in 2017 (International Institute for Sustainable Development, 2022) and the *"gilets jaunes"* (yellow vests) movement in France in 2018 illuminated some of the social pain and tensions evident when Governments try to close off the subsidy tap, if no compensatory instruments have been provided. At the same time, lessons can be learned from more positive examples – including approaches used in Ghana, Indonesia, Zambia and other countries. In these cases, it was important that subsidy savings were used to build social welfare, health care and education systems (Laan et al., 2023).

Looking ahead, the world is likely to see a checkerboard of different paces of transition and change across regions and countries, maybe even within countries. In a recent study of nationally determined contributions (NDCs), researchers found that few had what was described as a "transition plan" (Jones, 2023).

The fact that all countries have signed the pledge of Sustainable Development Goal 12 to reduce subsidies, yet so many do not have a NDCs transition plan, does not auger well for future efforts to cut subsidies or to wind down fossil fuel production. An added constraint is that many developing countries' NDCs are conditional on receiving adequate climate finance – which as noted above, has still not been forthcoming.

c. The most feasible targets

Given these challenges, initial steps may need to be small, but their implementation is urgent. For immediate purposes, the rapid phase out of explicit producer subsidies would seem the most obvious contender, and suppressing consumer subsidies would follow, in an appropriately sequenced manner. This needs to be done fairly and not threaten the essential needs of the poorer half of the population. But even in the case of the former, there are likely to be significant political and economic challenges, particularly in fuel-exporting developing countries.

Consequently, it is imperative to prioritize the reduction of subsidies in advanced economies. Developing countries currently lack the financial capacity to transition to new sources of foreign exchange generation and to provide the same level of protection to their populations. Additional capacities are required for these crucial tasks. As mentioned above, production subsidies only account for $53 billion, a fraction of total fossil fuel subsidies. However, this sum is highly significant compared to other sources of development and climate finance. Addressing production directly now would also have the double ecological benefit of reducing volumes of fossil fuels, while recognizing that there needs to be a means of ensuring the poorest households are still able to access renewable and affordable energy.

As entire economic systems tend to be highly dependent on fossil fuel, there are concerns in many countries that reducing subsidies – even just the subset of producer subsidies – would hurt economic activity and slow growth and development. In some countries, subsidies for production are used to ensure access to remote and rural areas, where other energy sources are not currently available. Hence, another strategy would be to simultaneously boost the use of renewable energy sources as an alternative. These are still only in the early stages of development in most countries and much needs to be done before they can be relied upon to even partly replace fossil fuels as a reliable source of energy. Moreover, there is the additional challenge, as shown in other sections of this chapter, that many developing countries have State-owned fossil fuel sectors that they rely upon for revenue. A switch to renewables will bring not only a drop in revenue for Government, but higher imports and the costs of intellectual property rights for the technologies needed to make the shift. A great deal more needs to be done to make sure the shift to renewables brings with it the desired benefits in terms of fiscal revenues, bottom of the pyramid benefits, job creation and industrialization.

Recent evidence on decoupling (Haberl et al., 2020; Wiedenhofer et al., 2020; Parrique et al., 2019) stresses that it is difficult, if not impossible, for Governments wanting to transition away from fossil fuels and cut subsidies to do so without reducing their existing energy use and economic activities (box VI.3). The impact of reducing subsidies will be extreme, yet to do nothing brings risks, including being further locked into stranded assets and the subsequent financial, social and economic shocks this will bring (*Trade and Development Report 2019*) on top of the physical shocks. However, this is not yet an option for developing countries, many of which will likely still need to increase emissions. For low-income and other developing countries, it is extremely unlikely that they can consider implementing subsidy reforms until developed countries take the lead. For developed countries, this involves not only scaling back their own subsidies but extending financial and technological assistance to help developing countries in their subsidy reduction efforts.

Box VI.3 The case of Indonesia: Financing reform of the palm oil and fossil fuel sectors

The Government of Indonesia grapples with significant challenges in domestic financing due to its dominant role in the country's financial sector, particularly in supplying financial debt instruments, given the limited size of financial entities, such as pension funds. Government debt creation is constrained by internal rules established after the Asian financial crisis to prevent capital flight. In 2019, Indonesia initiated tax expenditure and revenue reforms to elevate tax revenues from a low 10 per cent of GDP, a substantial challenge compared to advanced countries. There are also immediate challenges with respect to international finance, one of which is its high cost. This is a critical constraint even before the question of directing the finances raised towards emission reducing purposes – which can be another constraint if there is insufficient interest from investors.

In the palm oil sector, Indonesia has reconsidered the role of trade policies. Indonesia is the world's largest exporter of palm oil. Hence, it significantly contributes to international carbon emissions.[a] The Government has embarked on a programme to increase efficiencies in palm oil production and limit growth, and this is funded through export taxes. While expanding the moratorium on new plantations initiated in 2011 will likely have a significant ecological impact, the policy will increase pressure on fiscal resources. A large portion of the taxes generated from palm oil exports will be needed to support the transition of impoverished farmers; thus far, the bulk of export taxes raised on palm oil has been devoted to the biofuel programme.

In the energy sector, the Government has set a target of 31 per cent renewable energy by 2050, up from a target of 23 per cent by 2025. In 2021, actual performance in renewable energy reached 11.7 per cent. There are no plans for new coal power plants, except for those already at the financial closing or construction stage. In addition, the national electrical utility company will need a transition subsidy of approximately $4.8 billion to reach its 2030 targets and cover costs related to stranding assets, decommissioning coal plants, early retirement compensation for existing contracts with private energy providers, State coal revenue losses, tax income losses and policy incentives for redeployment of labour, capital and natural resources. So far, external sources of funding for this are small: they include REDD+[b] funding from Norway and a transition project from the Asian Development Bank. In February 2023, Indonesia and the Treasury of the United States announced the creation of a secretariat for a Just Transition Programme with the United States and European partners.

Source: UNCTAD.

[a] See https://theicct.org/palm-oil-is-the-elephant-in-the-greenhouse/.

[b] REDD stands for reducing emissions from deforestation and forest degradation; REDD+ includes "fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks".

D. CHANGING THE RECORD: BUILDING A CONSISTENT FINANCIAL ECOSYSTEM THAT ALIGNS CLIMATE AND DEVELOPMENT FINANCE

The previous sections have described some tensions and inconsistencies where the ambitions of the Sustainable Development Goals and low-carbon agendas are constrained or contradicted by the practice of not adequately financing the investments to achieve them. The notion common in financial approaches that risk can be transferred, and that this is somehow similar to making a transformational investment, has led to an overreliance on the State as the holder of risk and underinvestment when it comes to providing key elements of the climate-consistent development agenda. Additionally, it fuels enthusiasm for risk insurance products designed to transfer sovereign and corporate risks stemming from extreme weather and other climatic shocks.[6]

As suggested by Kedward et al. (2023), the alternative to a market-led, risk-reduction strategy is a "market-shaping" approach that could be achieved through public policy. International cooperation and regulatory measures also need to be coherent with the ambition of increasing and redirecting finance to development and climate. This includes revisiting the role of multilateral lenders, as often discussed, to better centre their mission on transformational development strategies that are also low-carbon and equitable and provide global public goods. As this chapter has suggested, the current lending model needs to be reformed to better support developmental lending without repeating the public cost–private profit mistakes of some previous models.

"Protecting and expanding policy space is critical to enabling developing countries to pursue just transitions. This involves making use of infant industry protection, local content requirements, trade policy, looser forms of intellectual property rights and industrial policy to capitalize on opportunities in a new low-carbon economy."

More positively, momentum is already gathering, especially among many European States, to exit the Energy Charter Treaty, because it inhibits more ambitious action by restricting the policy space of Governments to wind down fossil fuel activities. There are calls to protect the policy space of developing countries to support their own low-carbon industries through revisions and exemptions to restrictive trade agreements. Protecting and expanding policy space is critical to enabling developing countries to pursue just transitions. This involves making use of infant industry protection, local content requirements, trade policy, looser forms of intellectual property rights and industrial policy to capitalize on opportunities in a new low-carbon economy. However, achieving this requires deeper revisions to trade and investment treaties.

Efforts to build support for and activate the levers described above to create a financial system compatible with tackling climate change need to be guided and underpinned by existing principles, such as "common but differentiated responsibility and respective capabilities", "special and differential treatment", "polluter pays" and so on. These are well established in international law and provide a basis for articulating respective obligations between richer and poorer countries. Equity in all its dimensions needs to take centre stage and should guide the selection of financial levers used to raise and redirect finance. As described in the experience of South Africa and the Just Energy Transition Partnerships, the challenge for how fossil fuel-dependent countries can change their energy systems and contingent economic structure, while also supporting the people and businesses that have evolved around it, is a crucial justice issue. Moreover, if the transition is not just, it will not be sustainable.

[6] These include, for example, the Caribbean Catastrophe Risk Insurance Facility, which mixes parametric insurance and regional risk-pooling across Governments, and the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions.

More concretely, existing principles of special and differential treatment on international economic rules and common but differentiated responsibilities on climate action, in their procedural, distributional and intergenerational dimensions, provide a starting point for establishing who pays and how, and who should be the primary beneficiaries of international support. This in turn will be a function of who is able to secure participation and representation in the key bodies making the decisions about global climate finance and global financial governance more broadly. This inevitably means returning to sensitive questions about voting rights and regional representation in major funding bodies as well as the access to those key bodies of civil society groups working with communities on the frontline of climate change and development.

Some of these guiding principles might be conceived of under a more encompassing umbrella such as a Global Green New Deal (as described in detail in *Trade and Development Report 2019*). The original New Deal in the United States in the 1930s sought to tackle economic insecurity (akin to the challenge of the current just transition), the predatory nature of finance (echoing the current need to contain the financialization of climate action) and address infrastructure gaps and regional inequalities (comparable to the persistent challenges in today's hyperglobalized society). The New Deal was to achieve all this in the context of a deep and persistent global recession, similar to the threat of a possible "lost decade" that the world is facing today.

Green new deals would have their own particular features that reflect local needs and priorities. But a number of shared elements would provide their collective identity, including a massive investment push in a series of interconnected public goods, and a series of coordinated policy measures that enable industrial transformation and investment-led growth models. These approaches at a national level would need to be supported by corresponding initiatives at the global level:

- Global rules should be calibrated toward the overarching goals of social and economic stability, shared prosperity and environmental sustainability and be protected against capture by the most powerful players.
- States should share common but differentiated responsibilities in a multilateral system built to advance global public goods and protect the global commons.
- The right of States to policy space to pursue national development strategies should be enshrined in global rules.
- Global regulations should be designed both to strengthen a dynamic international division of labour and to prevent destructive unilateral economic actions that prevent other nations from realizing common goals.
- Global public institutions should be accountable to their full membership, open to a diversity of viewpoints, cognizant of new voices, and have balanced dispute resolution systems.

This conversation takes place against a background of calls by UNCTAD and others for a "new Bretton Woods" (Gallagher and Kozul-Wright, 2021). It also unfolds at a time when other constituencies are questioning whether there needs to be a new dedicated global climate bank (*The Economist*, 2023).

However, without a fundamental shift in how funding priorities are set and the ways in which finance is governed, such a move would be unlikely to address many of the issues raised here. Notably, these include representation of poorer countries and social groups, overoptimism about the role of and lack of regulation around private finance and continued financing of many of the drivers of the climate crisis that people around the world face – including, but not only, fossil fuels.

There is an additional issue of whether Governments, as shareholders of development banks, will allow them to do the kind of lending required. One constraint continues to be the straitjacket of requiring triple A ratings. This opens the door for long-standing calls for a new kind of credit rating agency with expertise in development finance institutions, as well as the need for a bolder approach on the part of the banks

themselves, given the assurances from agencies that higher leverage could be used without risking the rating (*Trade and Development Report 2019*).

The fact is, there is no simple answer. Simply redirecting a small percentage of global financial assets will not suffice. What is urgently needed is a determined and comprehensive overhaul of the entire global financial system. This task is undeniably complex, given the intricate interplay of diverse actors and institutions, each with distinct mandates, thresholds, and financing methods. However, only through a strategic and precise approach to these complexities can a financial landscape be established that is truly conducive to global development. This is not just a call for change; it is an insistence on a profound reconfiguration that aligns the global financial system with the imperatives of sustainable and inclusive progress.

E. CONCLUSION

The reason the world is facing a compounding climate and development crisis is not for lack of finance. It is due to the maldistribution and misalignment of finance in ways that undermine and contradict social and developmental needs and not only fail to respect environmental limits, but also challenge them.

Many of the actors currently dominating the global financial landscape are ill-suited to the challenge of delivering the transformative change now called for by the International Panel on Climate Change and many others (IPCC, 2018). A fundamental realignment of purpose, mandate and operating procedures is needed. Questions need to be asked regarding who (which countries, communities and social groups) finance should serve, as well as its purpose (which specific goals), and finally which governance mechanisms need to be employed towards these ends. These enquiries are crucial to ensure that financial contributions align with, rather than undermine, the goals outlined in the Paris Agreement and the broader Sustainable Development Goals (Newell et al., 2023). It is essential to undo the narrative that the primary role of public finance is to harness private finance for delivering public goods and services.

"The COVID-19 pandemic has shown that, if political and social will is present, it is possible to change the record."

The COVID-19 pandemic has shown that when the will is there, Governments and their institutions can use their power to mobilize vast amounts of capital (McDonald et al., 2020; Gutierrez and Kliatskova, 2021; Griffith-Jones et al., 2022) for the welfare of their citizens, to restrict harmful activities, encourage the repurposing of industries and intervene to protect the most vulnerable groups in society. This is not to say that all choices made were perfect. Rather, it shows how, if political and social will is present, it is possible to change the record.

One of the most effective ways to do this today would be to address the world's continued dependence on fossil fuels head-on; to stop financing new exploration of fossil fuels, to wind down the most problematic and dirty activities and to shift to renewable sources as widely as possible. Starting to turn off the fossil fuel tap, which causes the vast majority of global CO_2 emissions and is a main driver of global warming, would be a good first step. Development benefits can and should go hand-in-hand and need to be at the forefront of any coordinated strategies to ensure the transition is just and backed by political support.

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