

## 'Post-COP 26 Reflection on Climate Finance – The Challenge'

(by Dr. Angel Gavieiro; 14/11/2021)

*GFANZ's \$130 Tr. commitment to NetZero Climate Finance's Challenge sounds aligned in size, but not in speed given the headwinds investors & banks face to 're-gear' in order to deliver \$5-7.5 Tr. annually during this decade. Racing against 12-16 years left of carbon budget, 'out-of-the-box' thinking is urgently needed to catalyse climate finance; especially so for areas where only the public sector can lead, like critical decarbonization technologies in developed markets and infrastructure in emerging markets. At this point, innovating via an IMF SDR-based Public-Private Financing Scheme and/or even revisiting past proposals of 'green QE' are of the essence.*

After these 2 weeks of talks and negotiations at COP26 to agree about the 'what', time to go down to reality and get to grips with the 'how'.

Among the multiple announcements made, the one from Mark Carney's GFANZ on November 3<sup>rd</sup> really captured the headlines (1): *"Today, through the Glasgow Financial Alliance for Net Zero (GFANZ), over \$130 trillion of private capital is committed to transforming the economy for net zero. These commitments, from over 450 firms across 45 countries, can deliver the estimated \$100 trillion of finance needed for net zero over the next three decades"*.

It prompts a reflection regarding Climate Finance's 'Challenge': its scale and speed.

### **1) The Scale Challenge:**

Ahead of COP26 several reports came to light with bottom-up estimates about the investment required to deliver 1.5C NetZero pathway by 2050:

- Goldman Sachs (2): \$56 Tr., which focuses only on incremental investment excluding maintenance and other end-use capex.
- BloombergNEF (3): \$92-173 Tr., for energy supply and infrastructure.
- Boston Consulting Group & Global Financial Markets Association (4): \$100-150 Tr., representing 10 sectors that cover 75% of global emissions.
- McKinsey & Co (5): \$150 Tr., for energy and land use, 2/3 of it in developing economies.

Without entering to discuss the all-important details for comparability, it is fair to conclude that the \$100 Tr. estimate that GFANZ refers to as the volume of finance needed for NetZero seems aligned in order of magnitude with these reports, albeit perhaps in the low side of the range.

Open questions would be the breakdown by entity, by year (especially for the 2022-30 period), by nature of the commitments (i.e. on/off balance sheet, flow vs stock, gross vs net flows), by industry, geography and mitigation vs adaptation. Thus, the devil's detail is a 'work-in-progress' for everyone.

Now, what about speed?

## 2) *The Speed Challenge:*

This is the 'belly of the beast'. If we focus on the \$100-150 Tr. range (for which 3 of the reports overlap), and for simplicity's sake we take as a proxy IPCC's NetZero target of reducing greenhouse gases by 50% by 2030 (so \$50-75 Tr. arguably should be invested by then), and we annualize it over the decade, it translates to \$5-7.5 Tr. per annum from 2021 to 2030.

What is the re-allocation effort implied by this annual volume? Estimates of global volume of equity, bond and loan flows annually reach \$15 Tr. (as per BCG & GFMA (4)); so, it implies a 33-50% resource reallocation of global financial flows (leaving aside considerations about net vs gross).

Global climate finance flow reached \$640 Bn in 2020 (as per Climate Policy Initiative (6)) and, given 2021's ESG momentum, it may reach \$1 Tr. by year end. Thus, we will start 'the challenge' for this decade with a shortfall already of \$4-6.5 Tr. this year.

In addition, financial institutions worldwide are facing headwinds to 're-gear' themselves in order to deliver climate finance:

- *ESG disclosure and standards*: critical for investing/lending into ESG projects and companies in transition; companies' disclosure has been voluntary and so heterogeneous, only starting to become compulsory next year in a few jurisdictions; standards, methodologies and taxonomies have suffered from fragmentation and lack of coordination until recently.
- *ESG integration in decision-making*: institutional investors and banks are peppered along the continuum curve of adapting policies, processes and IT systems to digest ESG data; they are dazzled by many portfolio methodologies to choose from in order to produce the risk / return / ESG impact insights to inform decisions; they are grappling with governance changes at investment/risk committees and fiduciary duty implications at board level.
- *ESG private-public investment schemes*: except for solar and wind, many decarbonization technologies are not yet investable at scale by private financing alone; they need public support in the shape of direct investment, grants, tax credits and/or guarantees; this makes the development of joint financing mechanisms crucial, which is especially acute for projects located in emerging economies, given the associated country, policy and currency risks.
- *ESG regulation*: starting with the all-critical carbon tax but extending to industry quotas, product standards, etc.; regulation is still evolving or uncertain for many industries across jurisdictions, which do not provide yet the support, clarity and predictability to enable projects for private investment, regardless of appetite and joint schemes. Same goes for financial regulation, since the impact from adaptation of capital adequacy regimes (Basel III) and supervision (Central Banks' stress testing) still needs to be ascertained, affecting banks (e.g. climate stress testing may generate 'brown bad books' triggering recapitalizations).

Therefore, Speed is the key problem, not only quantitatively because of the volume shortfall expected for the first few years of the decade, but also qualitatively due to the above headwinds. Now, this problem represents a great innovation opportunity to catalyze the 're-gearing' by investors and banks, and here I anticipate Digital Climate Finance solutions will become a key enabler.

Let's not forget the ultimate reason why the planet needs 50% GHG reduction by 2030 (the 'north star'): we only have left 400-500 GtCO<sub>2</sub> (±220 GtCO<sub>2</sub> equivalent from non-CO<sub>2</sub> emissions) of carbon budget for a 67%-50% chance to 1.5C NetZero pathway (as per IPCC (7)); which we are consuming at c.31 GtCO<sub>2</sub> per year (c.51 GtCO<sub>2</sub> equ. including non-CO<sub>2</sub> emissions), so it will last 12-16 years.

Thus, time is of the essence and the annual shortfall seems too large for digital solutions to accelerate private investment in such a large scale during 2022-25, so we need something else, but what exactly?

### 3) *Potential Climate Finance Catalyser:*

Here is where 'out-of-the-box' thinking is necessary, and fast.

In 2016, I was attracted to a similar 'out of the box' challenge that the European Commission and McKinsey Global Institute launched in an open-entry essay competition focused on looking for innovative proposals to tackle the economic stagnation the EU was suffering at the time.

The essay (8) I submitted argued that Climate Change was not only a global threat but also an enormous economic opportunity, where large public and private investment could catalyse a Keynesian-type economic recovery, which over time could self-fund itself via climate-related taxation. The solution proposed was for the IMF to issue 'Climate Change War' long-term Bonds, underwritten by main global Central Banks via QE (which 1-2 decades later, so beyond the average maturity of public debt outstanding, could be sterilized via taxation on the back of economic growth and less leveraged public balance-sheets).

Among 400 papers presented, this one was cited within the top-20 ideas, but did not get traction, as shown last year with the EU refusal to finance the European Recovery Fund by issuing AAA jointly mutualized perpetual bonds ('consols', a similar idea at EU-level only, though still indirectly backed by ECB's covid-prompted QE). Interestingly, at COP26 a CEO from a large asset manager mentioned the possibility of 'Green QE', so perhaps this QE-based scheme might still have some legs.

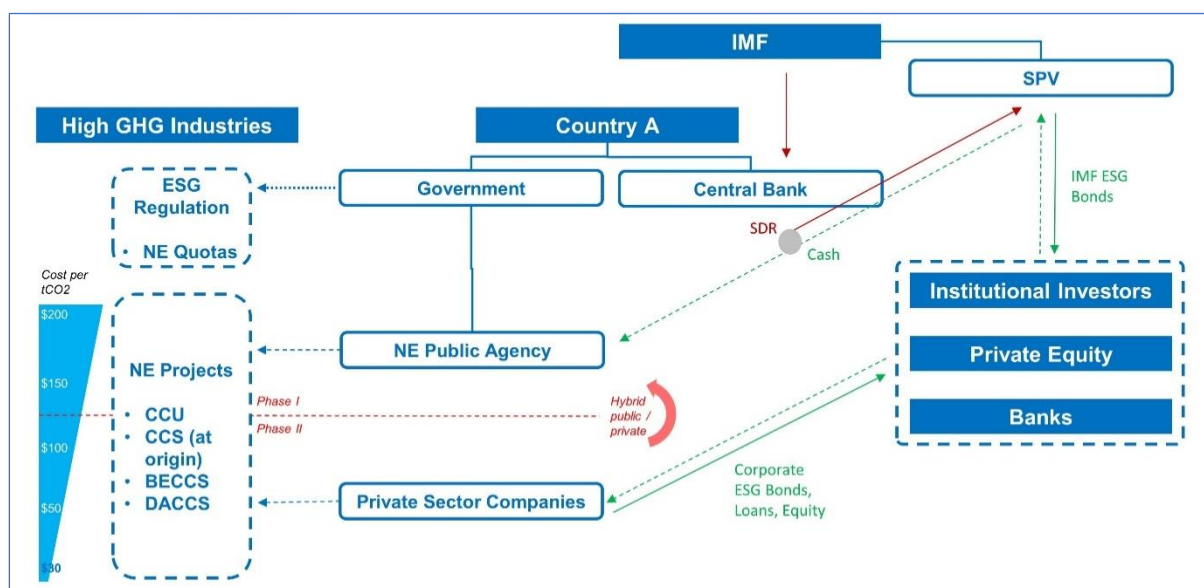
Having said that, the Covid crisis has seen Central Banks shovelling QE for \$9 Tr. (reaching \$25 Tr. since 2008 Credit crisis) and many governments' debt/GDP reaching records not seen since WWII. Thus, COP26 was a good occasion to evolve the 2016 proposal to account for these additional constraints (assuming potentially a much higher opposition to further QE & public debt).

The new proposal (9) aims to mobilize at scale and speed, starting in 2022, a large volume of private investment for the public sector to address the most critical, urgent and difficult-to-tackle climate change priorities (which also at this point are difficult to be funded by the private sector alone):

- *Critical decarbonization technologies in developed markets* (i.e. CCUS, green hydrogen...). For instance, CCUS is essential to abate 6-10 GtCO<sub>2</sub> by 2050, currently with <0.1 GtCO<sub>2</sub> in +65 projects globally and a substantial green premium (10); it requires large investment so that scale and learning economies bring cost below \$100/tCO<sub>2</sub> for widespread adoption.
- *Critical infrastructure in emerging markets*. For instance, enabling the substitution of planned carbon power plants for decarbonized alternatives, accelerating renewal-based electrification of growing cities, or ensuring CCUS technology transfer (from developed economies) to existing hard-to-abate cement, steel and chemical plants.

To catalyse private-public investment, and to gain time while private finance 'regears', this proposal suggests an IMF SDR-backed, AAA-rated, ultra long-term, ESG Bond issuance via SPV, addressed to

**global institutional investors.** The proceeds would be directed to each government via its Central Bank selling its SDRs to the IMF SPV (to back the bonds), with a specific Public Agency centralizing/prioritizing public investment at country level. SDR selling would not add to the countries' debt/GDP.



Source: AG Strategy & Partners Ltd.

For countries, participation in this scheme would go hand-in-hand with accepting the roll out of specific demand-driven regulatory measures related to the industry and/or technologies targets of the investment. For instance, governments could set Negative Emissions quotas for specific industries requiring CCUS (example shown in the illustration), quotas aligned to each country's Nationally Determined Contributions.

For investors, IMF AAA bonds would be a 'business as usual' investment, even better since this one would be fully collateralized with SDRs (i.e. mutualized world countries support) and ultra-long term, ideal for pension funds and life insurance companies. Separately to this scheme and at their own pace as they 're-gear' portfolios towards ESG, investors would participate also in corporate ESG financing.

For the IMF, the SDR scheme would need to create a long-term interest rate (akin to current short-term rate) for SDRs held in the SPV, covering its outstanding bonds' cost of funding. For bond amortization, e.g. non-call 50 to 100 years maturity, countries would buy back SDRs before year 50.

In August, with the aim of helping emerging economies to tackle excessive indebtedness from tackling Covid 19, IMF created \$650 Bn SDR, on top of existing £204 Bn. Recognizing that developed economies would barely make use of their part (c.58%), IMF is suggesting on-lending \$100 Bn from the latter to the former to increase support. As a numerical exercise, current \$0.8 Tr. SDR balance would be able to finance on average 33% of CCUS and 20% of infrastructure's 5-year investment needs for, respectively, developed economies+China vs emerging markets (excluding China).

Therefore, this proposal would require updating the SDR scheme and its size, beyond the August increase. More strategically, perhaps it brings the chance to also rethink IMF's purpose and composition to ensure is reflective of the new G20 reality and this XXIc challenge, Climate Change. Is it time for a Bretton Woods 2.0?

Note: a more detailed presentation pack of this new proposal is available upon request ([angel.gavieiro@ag-strategy.com](mailto:angel.gavieiro@ag-strategy.com))

#### References:

1. “Amount of finance committed to achieving 1.5°C now at scale needed to deliver the transition”. Glasgow Financial Alliance for Net Zero (Nov. 2021)  
(<https://www.gfanzero.com/press/amount-of-finance-committed-to-achieving-1-5c-now-at-scale-needed-to-deliver-the-transition/>)
2. “Carbonomics: five themes for progress at COP26”. Goldman Sachs (Oct. 2021)  
(<https://www.goldmansachs.com/insights/pages/gs-research/carbonomics-5-themes-of-progress-for-COP26/report.pdf>)
3. “Energy outlook 2021”. Bloomberg NEF (Jul. 2021)  
(<https://about.bnef.com/new-energy-outlook/>)
4. “Climate finance markets and the real economy”. BCG & GFMA (Dec. 2020)  
(<https://www.sifma.org/wp-content/uploads/2020/12/Climate-Finance-Markets-and-the-Real-Economy.pdf>)
5. “COP26 made net zero a core principle for business. Here’s how leaders can act”. McKinsey & Co. (Nov. 2021)  
(<https://www.mckinsey.com/business-functions/sustainability/our-insights/COP26-made-net-zero-a-core-principle-for-business-Heres-how-leaders-can-act?cid=cl4c-cml&consentparameter=%7bSF:Consent%7d>)
6. “Global landscape of climate finance 2021”. Climate Policy Initiative (Oct. 2021)  
(<https://www.climatepolicyinitiative.org/wp-content/uploads/2021/10/Global-Landscape-of-Climate-Finance-2021.pdf>)
7. “Climate change 2021: the physical science basis – summary for policy makers”. IPCC (Aug., 2021)  
([https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM\\_final.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf))
8. “Bleak optimism & slight hope”. Angel Gavieiro (Mar. 2016)  
(<https://ag-strategy.com/wp-content/uploads/2021/07/20160321-Bleak-Optimism-Slight-Hope-v.4-Angel-Gavieiro-1.pdf>)
9. “Climate finance – IMF SDR-based public-private financing scheme”. Angel Gavieiro - AG Strategy & Partners (Nov. 2021)
10. “The case for negative emissions: a call for immediate action”. Coalition for Negative Emissions (Jun. 2021)  
(<https://coalitionfornegativeemissions.org/wp-content/uploads/2021/06/The-Case-for-Negative-Emissions-Coalition-for-Negative-Emissions-report-FINAL-2021-06-30.pdf>)