SUSTAINABLE DEVELOPMENT, CENTRAL BANK STRATEGY IN A DIGITAL WORLD AND REFORM OF THE IMS

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Aligning finance on ecological principles in a digital world

Climate-related risks are embedded in radical uncertainty that requires a paradigmatic change to rationalize a principle of precaution

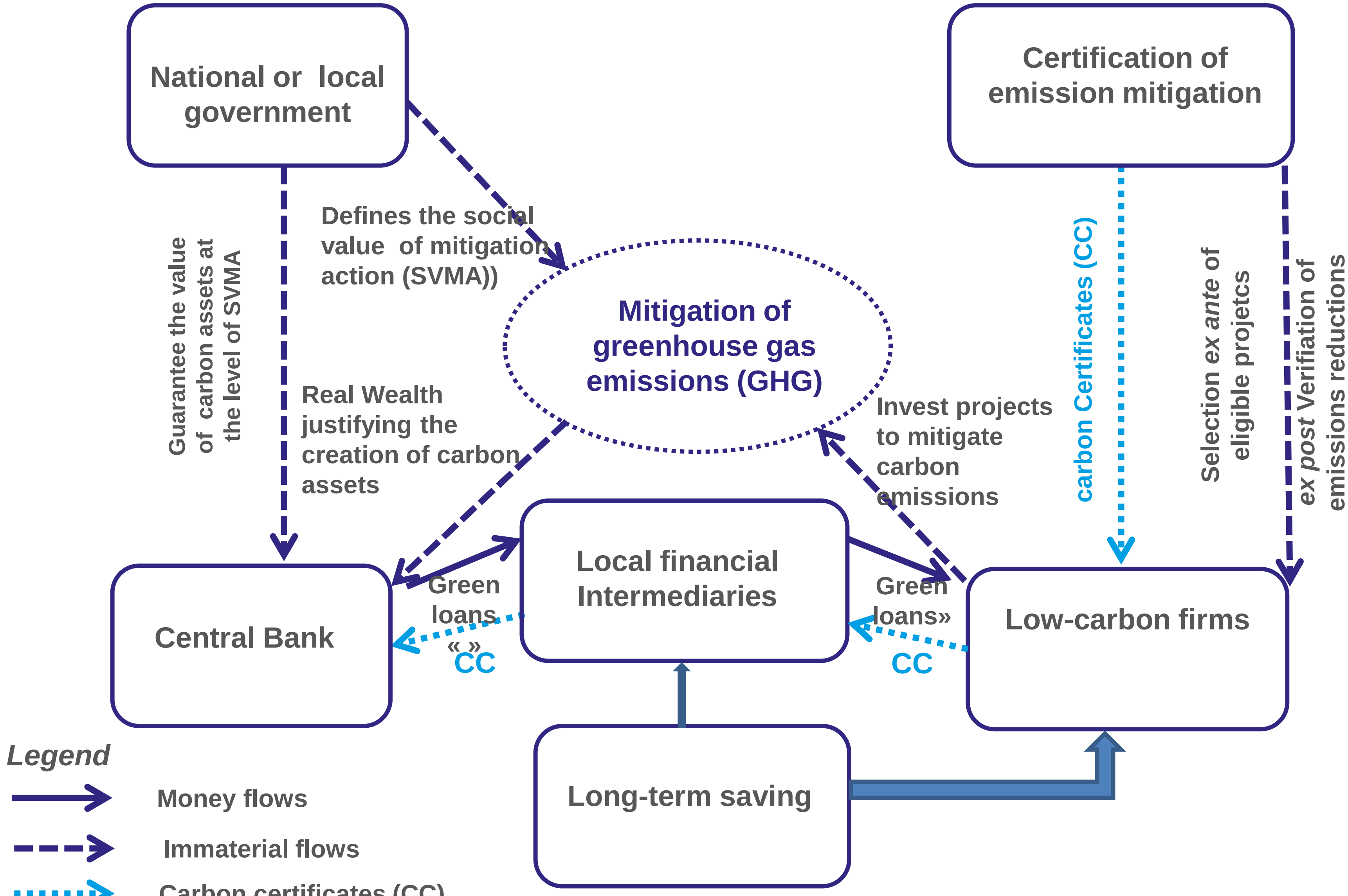
- Risk ≠ uncertainty is crucial to undertake climate policies, because under uncertainty there is no rational basis to estimate the probability of future events from past information.
- Therefore, evaluating risk via asset market prices has no foundation in an uncertain world → *markets have no ability to insure risks on their own.*
- Climate-related risks stem from multiple and interactive *biogeochemical cycles*, highly non-linear with unknown tipping points. Moreover, those dynamics have a much longer horizon than financial markets.
- Socioeconomic paths influence environmental cycles in complex roundabout ways, leading to indeterminate sets of occurrences.
- Therefore, it is high time to get rid of the neoliberal belief in efficient financial markets. The paramount objective should be *resiliency* in applying preventive policies under long-term strategic planning to overcome the *tragedy of the horizons*. Collective planning is required to guide finance because *the survival of civilization is not included in individual preferences*.

A conceptual achievement post-Cop21: the social value of mitigation action (SVMA) and the need to protect global common goods.

- COP21 has made 2 breakthroughs:
  - Alignment of financial flows on a financial model making a priority of low-carbon development (Article 2). §108 of the decision gives a legal basis of the SVMA.
  - Call for inclusion of socioeconomic actors in a dynamic where financial institutions must play a key role

- The Stern Stiglitz Working Group hosted by the World Bank in 2017 has given the theoretical significance of SVMA:
  - A public shadow price to match the social return of mitigation action and the private return of economic actors undertaking carbon-mitigation investments *(bonus*). This value should be set by political authorities to provide carbon neutrality after 2050.
  - The SVMA is ≠ the price of carbon set to dissuade polluters (*malus).* However, the transition to carbon neutrality must achieve the convergence of both measures.
- UN-held global *carbon registry* of all fossil fuel underground as a publicly available data base to restrain new hidden fossil-fuel production by producer nations would help institutional investors to disinvest from “brown assets”.

Framework of financial intermediation pledged on carbon mitigation



A paradigm change:
creating central bank digital currency (CBDC)

- In retail trade, CBDC is a legal currency for on-line payments. CBDC, either as tokens (digital cash) or interest-bearing accounts at the central bank, would make payment settlement instantaneous, would extend financial inclusion to non-bank people and would prevent the domination of private monopolies in the payment system.
- Concerning for the transmission of monetary policy:
  - The interest rate channel would be substantially improved with the ability to set negative interest rates for countercyclical policy;
  - The banking channel would be weakened, depending on the ability of banks to attract bonds on capital markets that will be less substitutable to CBDCs than deposits. Commercial banks will become like mutual funds.
  - The foreign exchange channel bears upon the future of the international monetary system

The international dimension

Advantage of the SDR in a multinational system

- *The SDR is an ultimate reserve asset that is no country debt*. Because it is an international standard aligned on the weights of the currencies defining its basket, *it is relatively immune to exchange rate fluctuations*. Its use as an international unit of account would alleviate the impact of exchange rate fluctuations on the volatility of international assets.
- Beyond quota allocation, SDRs could be issued according to the needs of international liquidity and become the ultimate means of settlement in a symmetrical settlement of claims and liabilities between central banks.
- Power within the IMF should be overhauled for a multilateral order:
  - Adequacy of voting rights with economic weight of member countries.
  - Mergers of the quotas of euro area countries and single representation in the IMF.
  - Abolition of veto exerted by a single country.
  - Reinforcement of the powers of the executive committee.
- The IMF would become the primary source of collective insurance, solving the Triffin dilemma in establishing symmetrical adjustment between creditors and debtors in the international arena.

SDR accounting

Initial allocation

Assets	Liabilities
SDR	Deposit from IMF SDR Account

CBA (central bank country A)

Assets	Liabilities
SDR	IMF SDR Account Deposit

CBB (central bank country B)

Assets	Liabilities
Deposit in CBA	SDR
Deposit in CBB	

IMF SDR account

Exchange of SDRS against national currencies : A (non-basket currency) and B (basket currency)

Assets	Liabilities
Deposit in CBA	Deposit from IMF SDR Account
SDR	

CBA (central bank country A) non-basket currency

Assets	Liabilities
Additional holding of SDR	Deposit from CBA
SDR	Deposit from IMF SDR Account

CBB (central bank country B) basket currency

Assets	Liabilities
	SDR
CBB	
CBA	

IMF SDR Account

Back to biogeochemical cycles and pandemic harm

- Supporting environmental development policies:
  – Countries with unused SDRs can lend them to multilateral development banks to finance low-carbon investments in developing countries to help fulfill commitments taken by advanced countries in the Paris Accord.
  – Capitalization of the Green Fund for the climate.
- For a further advance beyond quota allocations, the valorization of GHG mitigation ascribed to those financings could modulate the access to new SDRs, whether a reform of IMF. becomes the baseline for institutional cooperation in a future multilateral monetary order
- In present pandemic stress, an emergency distribution of new SDR issuance, estimated at $2trn by IMF's executive director, to provide developing countries with access to large quantity of foreign exchanges to purchase more imports of agricultural goods, protective and personal equipment, and other goods, is urgently needed.

The stake of exchanging CBDCs internationally and the future of the IMS in a digital world

- Transborder payments between multiple CBDCs require common standards to transmit messages and overlapping clearing between time zones for instant settlement. International standards are required for a multipolar IMS.
- Two views should be studied further for a multipolar IMS:
  - *A synthetic world currency* grounded on a basket of CBDCs and operating through a network between those central banks. The diversity of the currencies in the basket would reduce FX fluctuations of other currencies and the subsequent volatility of capital flows suffered by EMDEs. Overtime the basket of currencies would become a safe worldwide asset.
  - *The issuance of digital SDRs* as a flexibly supplied safe reserve asset. With digital SDR transfers becoming the IMF’s single financing mechanism, the IMF would become the international lender of last resort between central banks, according to the same logic as national central banks within their sovereign monetary space.