

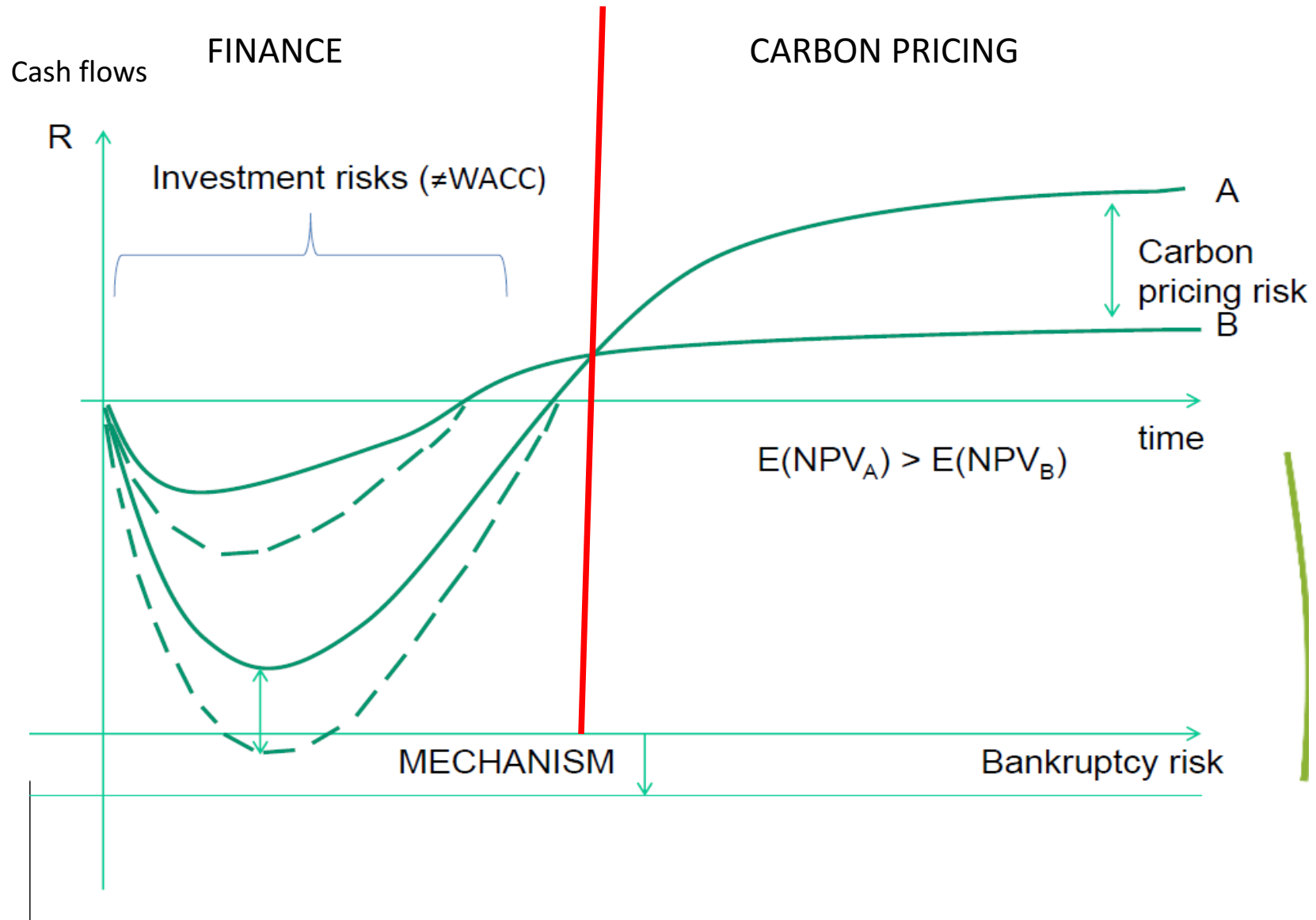
Meeting the *'100 G\$ and +'* challenge

Jean – Charles Hourcade
(Cired-Enpc-Agroparistech)

CBDR and GCF at risks of the distrust?

- How to pass from 3G\$ per year to 100G\$ and 500G\$ in a context of *'depression economics'*, *'public debts'* and *rebalancing of the world economic equilibrium*:
 - exacerbates the *'donor fatigue'* in the Annex 1 countries
 - Reinforces the **resistance** to carbon pricing (explicit or implicit)
- A problem of **orders of magnitude**
 - **Incremental Investments < 0,5% of the GDP in non O&G countries**
 - **leveraged inv costs < upfront inv costs < induced inv costs**
 - **Redirected investment = 8 to 9% of the Gross Capital Formation**
- **A double mouvement needed: to increase the number of economically viable LCIs and attracts 'savers'**

Triggering investments in an uncertain context : carbon prices vs cuts in capital costs



From the SVMA to the Present Social Value per Ton (World SVMA)

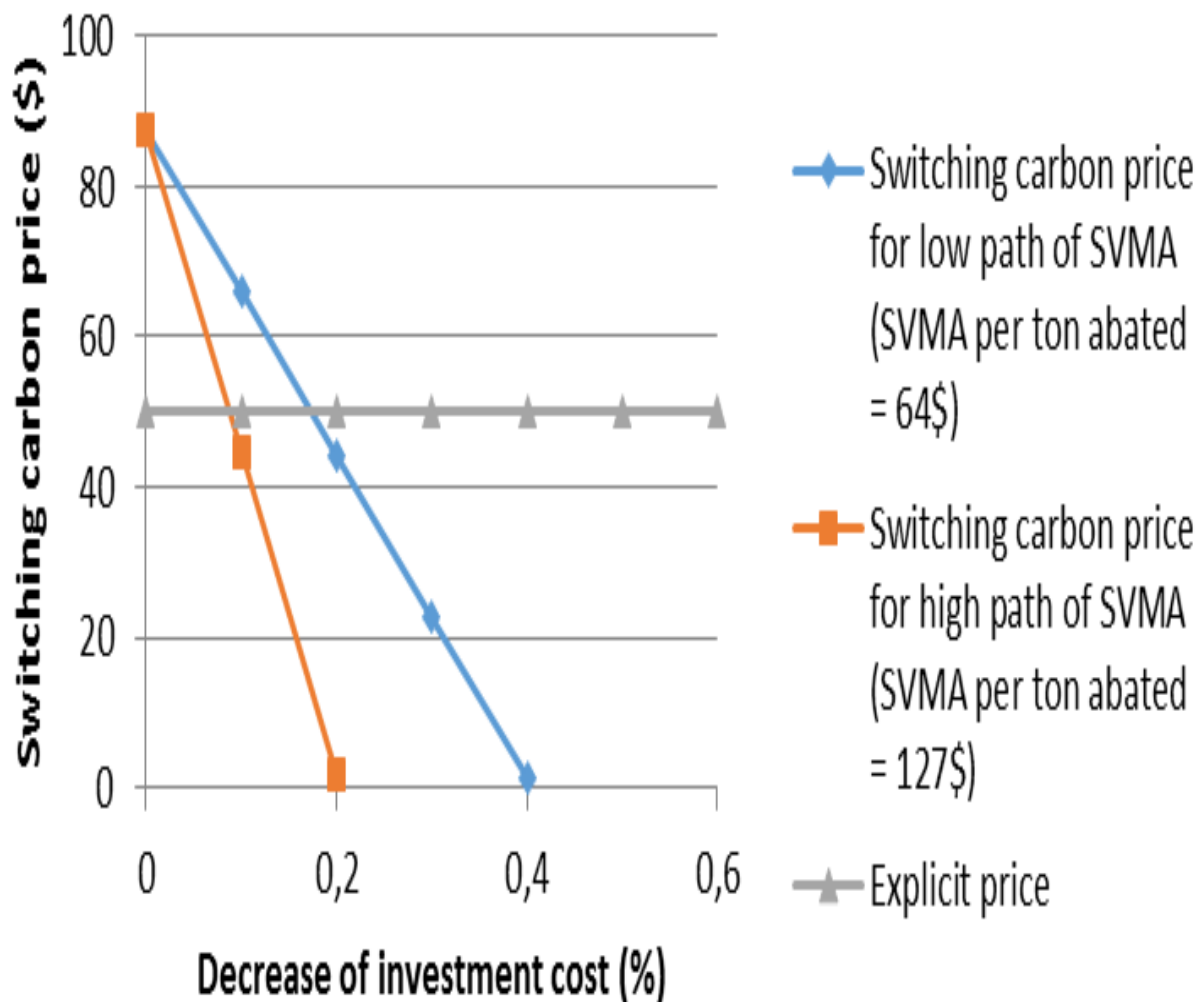
| | Technological pessimism path | | Technological optimism path | |
|---------------|------------------------------|--------|-----------------------------|-------|
| Discount rate | 5% | 2% | 5% | 2% |
| T=10 | 73,50 | 87,25 | 36,66 | 43,24 |
| T=20 | 75,76 | 104,71 | 36,54 | 50,20 |
| T=30 | 72,26 | 115,34 | 35,56 | 56,96 |
| T=40 | 68,82 | 127,50 | 34,34 | 64,22 |

Domestic SVMA and Domestic Prices: the Indian Case

| | 2020 | 2030 | 2040 | 2050 |
|------------------------|-------|-------|-------|-------|
| Indian SVMA | 20 | 50 | 70 | 105 |
| Explicit carbon prices | 3 | 10 | 18 | 30 |
| <i>SVAT10</i> | 25,51 | 46,76 | 67,98 | 81,08 |
| <i>SVAT40</i> | 19,96 | 29,76 | 37,08 | 40,35 |

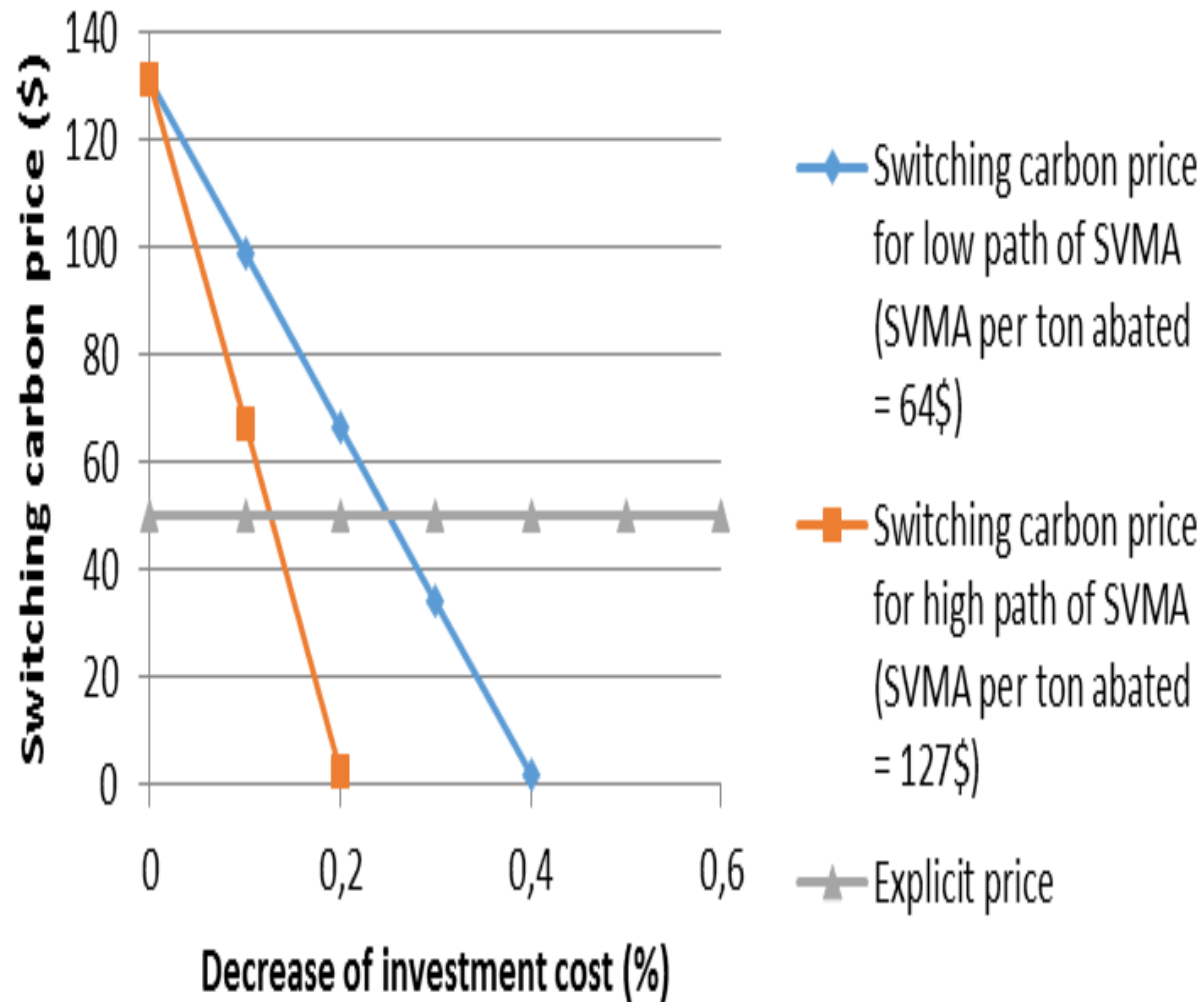
Switching carbon prices for coal CCS

(SVMA with 2% discount rate, 8% private discount rate)



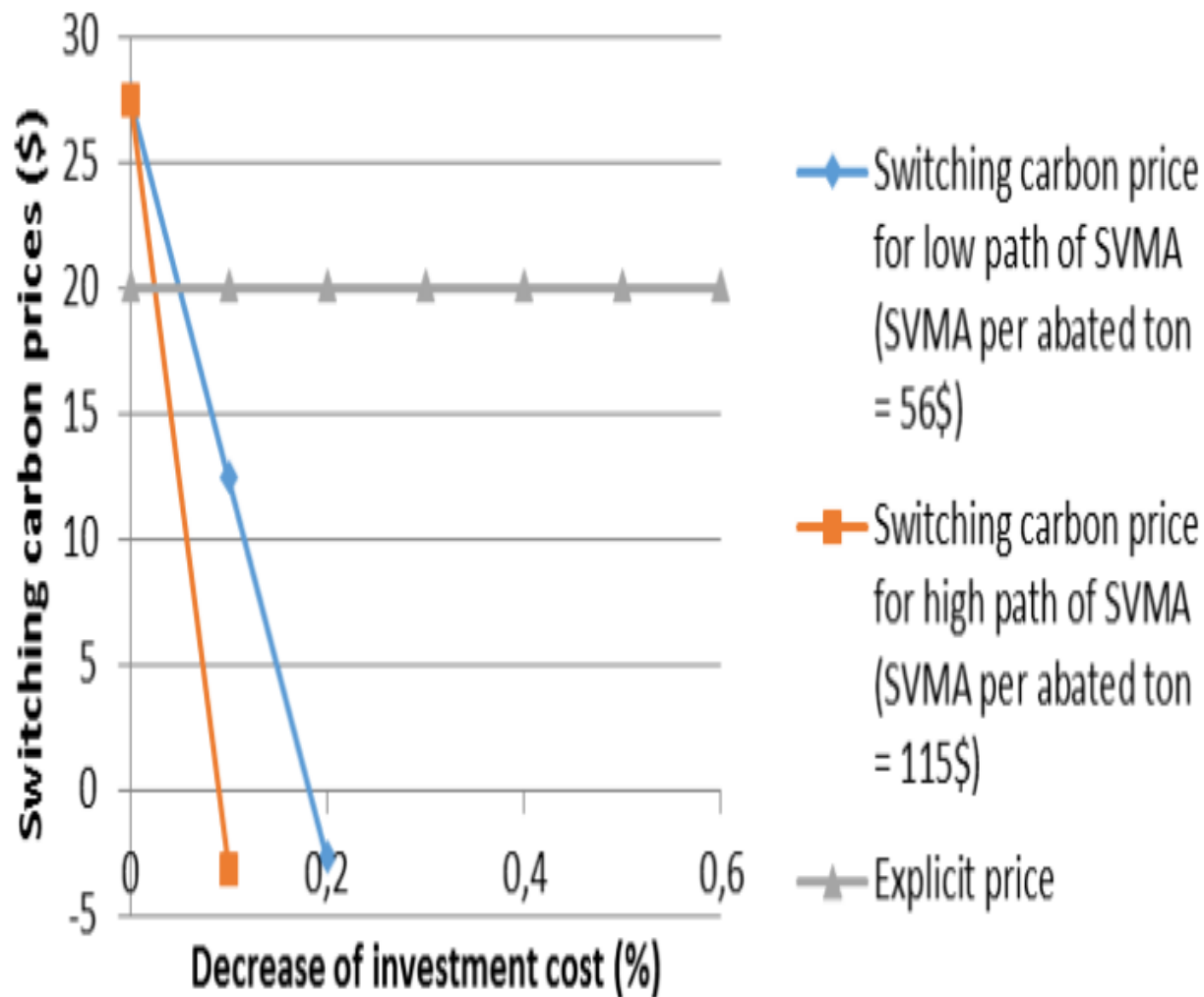
Switching carbon prices for coal CCS

(SVMA with 2% discount rate, 12,5% private discount rate)



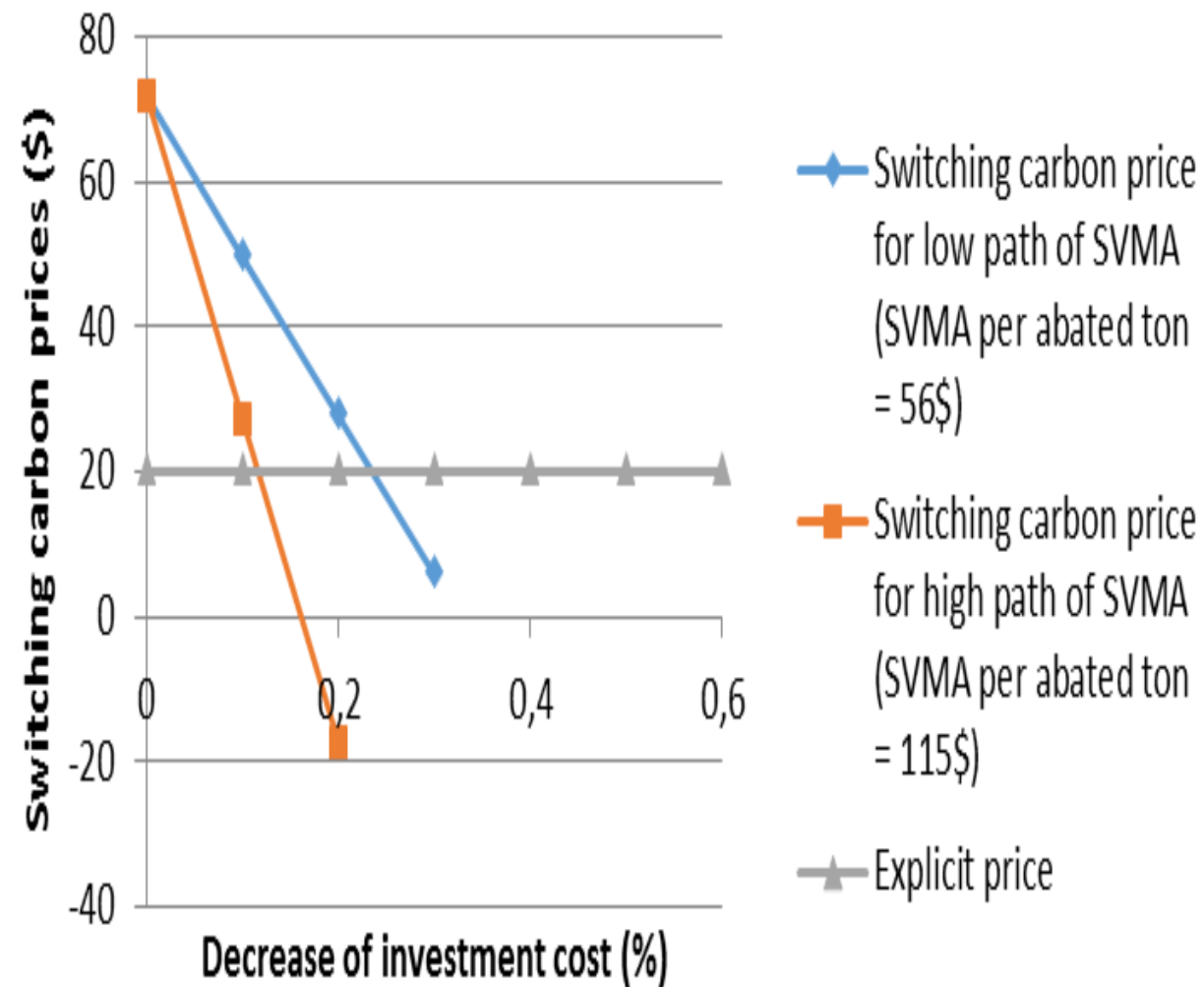
Switching carbon prices for Hydro

(SVMA with 2% discount rate, 8% private discount rate)

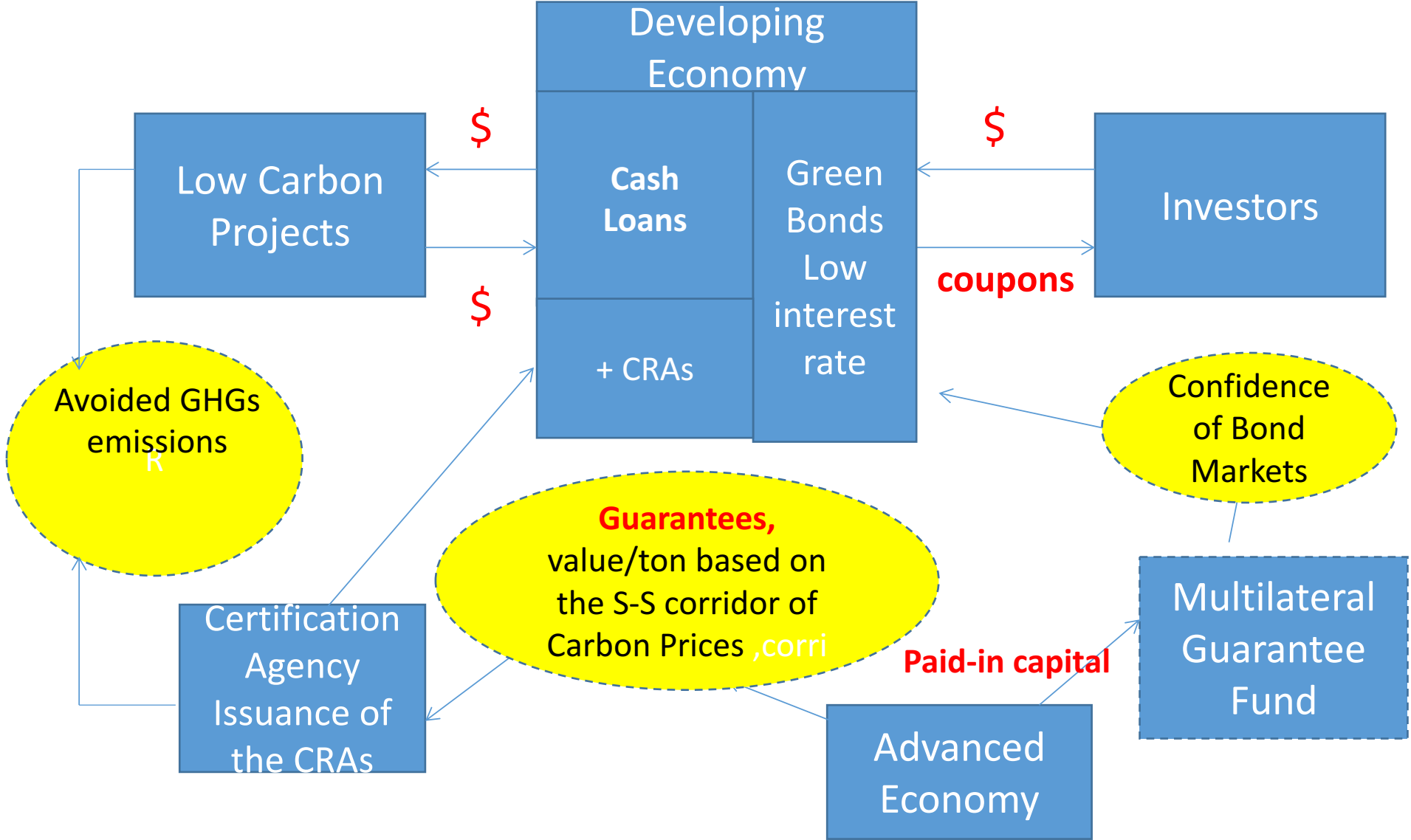


Switching carbon prices for Hydro

(SVMA with 2% discount rate, 12,5% private discount rate)



Articulating two leverage effects



Sketching a possible mechanism for 'Clubs of Initiatives'

1. ***Its anchor*** : an agreement on ***Social, Economic and Environmental Values of Mitigation Activities ...*** (per ton of avoided carbon emissions) Article 108 of the Decision of the Paris Agreement
 - A 'common SVMA' for public guarantees of advanced economies National SVMA for domestic public guarantees
2. ***Voluntary commitments, by 'clubs' of governments,*** to back a quantity of ***C.R.As*** over every five years
3. Central banks open ***credit lines*** and accept as repayment ***climate remediation assets*** to fund LCIs
4. ***An Independent Supervisory Body*** to certify the eligibility of the projects in function of the ***NDCs*** list and secure the ***statistical additionality*** of the system through the allocation rules of CRAs