A new deal for Green Growth?

Hedging against the risks of ‘secular stagnation’

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Jean-Charles Hourcade, CIRED-SMASH

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After COP21: mind the implementation gap

• A temptation to postpone climate action until after the end of the current economic doldrums and social alarms

• How to convince ‘climate agnostic’ policy-makers to go beyond symbolic announces
  – Aligning LCT with Sustainable Development Goals
  – LCT as a way of responding the alerts of prominent economists against the risks of ‘secular stagnation’
  – Guarantee no immediate and future negative impact on unemployment and on public debt
The ‘fault lines’ of the world economy

• **Chronic excess of savings over (productive) investment**
  • ‘Propensity to save’ > ‘propensity to invest’
  • ‘Weak intermediation between long term assets and short term cash balances,

• **Type of globalisation:**
  • ’overly export-led strategy in emerging economies (R. Rajan)
  • Dualistic development
  • Risks of « *currency cold war* »

• **Cumulated wedge between potential growth and real growth,** shortfall of infrastructure investments (World Bank, OECD)
Investment pattern in a ‘shareholder business regime’

\[ E(VANA) > E(VANB) \]
Combatting the ‘postponement temptation’

Positive message on the urgency of climate action and its long term co-benefits

Emphasizing how the ‘trigger phase’ of a Green Growth regime can:

• **Awake** the investor/Buridan’s Donkey

• **Overcome the limits of Quantitative Easing Policies**: risks of depression vs risks of re-unleashing speculative bubbles,

• Thus overcome/compensate/dismantle **vested interests** opposing to the reform of current economic globalisation,
At the root of the ‘tragedy of horizons’

$E(VANA) > E(VANB)$
A financial intermediation able to:

• Move down, now, the ‘danger line’ for low carbon investments and support INDCs
• Redirect, now, savings pools towards infrastructure investments ... 
• Increase the efficiency of sectorial policies and hedge against the fragmentation of climate finance through the incorporation of a common ‘prix directeur du carbone’
• Boost, now, final demand in the world economy over the short term
The COP21’s surprise

- The article 2 of the Agreement: aligning financial flows along a new trajectory of global economic development.

- The article 108 of the decision: “recognizes the social, economic, and environmental value of mitigation activities and their co-benefits to adaptation, health, and sustainable development” (SVMA)
Positive Carbon Pricing and Finance

• Supporting INDCs via:

  * A volume of public guaranties
    + SVMA + Credible MRV

• Mobilizing private saving and institutional investors through the creation of low carbon assets

• Increasing the efficiency of real carbon prices: more investments for a given carbon price and incentive for governments to launch tax reforms

• a ‘notional price’ to put some economic rationale in INDCs and prevent their arbitrariness
Numerical experiments on the European Case project Cired/Iass

• Disentangling the drivers of costs/benefits of LCT policies:
  – Propagation of higher energy costs throughout the industrial matrix
  – Crowding out vs spill-over effects of low carbon investments
  – Lower burden of the energy bill on trade balance
  – Shift in development patterns, technical change and life-styles

• LCT for a European Economy
  – trapped in a ‘slow growth’ regime: European apparent labour productivity catches up the US one in 2060 only
  – Confronted with high or low oil prices
  – Fulfilling unilaterally its decarbonation objectives
Recursive General Equilibrium Model

Hybrid structure:
- tracking physical and monetary flows + installed capacities
- interconnecting BU models of E/T/B/Is

Endogenous technical Change

**Imperfect foresight** -> possible idle capacities

Gap between potential and real growth

Exogenous assumptions of the external balances -> endogenization of capital flows

**Calibrated over 2001 -> 2013, including for the oil prices**
Four sets of LCT policies

V0: Climate centric measures only (carbon costs)
V1: V0 + infrastructure policies and investments
V2: V1 + carbon tax reforms (lower payroll taxes)
V3: V2 + public guarantees and SVMA
The mechanisms in a nutshell: Looking at the 2015-2035 GDP Growth Rates

<table>
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<tr>
<th></th>
<th>High oil prices</th>
<th>Low oil prices</th>
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<td>plus carbon tax</td>
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<tr>
<td>plus carbon fin SVMA</td>
<td>2.28</td>
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Too good to be true? Too bad to be true?
A zoom on the ‘very short term’: unemployment

<table>
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<th>2015 - 2020</th>
<th>2030 - 2035</th>
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<tbody>
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<td>Carbon 'cost' only</td>
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<tr>
<td>plus infrastructures</td>
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<tr>
<td>plus carbon tax</td>
<td>1,02/1,06</td>
<td>1,01/1,06</td>
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<tr>
<td>plus carbon fin (SVMA)</td>
<td>0,9/0,94</td>
<td>0,79/0,88</td>
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The key lies in the sequencing of costs and benefits

Lower carbon tax/price needed over 2015-2020

High Oil Prices: 11$/TCO2 in V3 against 30$/TCO2 in V2
Low Oil Prices: 152$/TCO2 in V3 against 208$/TCO2 in V2

Reason: More investments triggered for a given carbon tax

Higher final demand through higher investments and no Crowding Out on Non Energy Investments

V3: High Oil Prices: + 50G$ and + 64G$ compared with R and V2
V3: Low Oil Prices: + 16G$ and +23G$ compared with R and V2

Less short term frictions and more ‘knock on effect’
The ‘mechanics’ of the Short Term ‘knock-on effect’

Slight reduction of the energy burden on trade balance
Slight inward redirection of economic activity (low exposed markets)
Slight reduction of labor costs (on average)

Higher final demand for non energy goods $\rightarrow$ slightly higher wages

Slight reduction of energy bill of households if .... \( \uparrow \text{EE} \uparrow \text{EnergyPrices} \)

'Keynesian' effect of mitigation investments (energy and beyond)
Behind the ‘mechanics’ the political role of taxes and finance

No ‘economic magic bullet’

Need of articulating policies fragmented so far

Need of articulating many level initiatives

Articulating many levels of governance

Compensations: how to make people the owners of the LCT

We need fiscal and finance policies because:

Fiscal systems are the lubricant of changes: national processes in nature (Article 136 of the Paris Agreement)

Financial systems are the ‘fuel’ of changes, they manage the ‘commerce of promises’
The financial intermediation system: carbon based money creation

1. MRV of ↓ CO2 and CC allocation

2. Reimbursement of part of the loan in CC

3. CC = eligible carbon assets

4. Public guarantee on the value of carbon assets

*Political agreement on the VCRA*

Central Bank

Banks

Governments

Low-carbon projects

« Green » loan

Carbon-based QE
The private savings channel

1. MRV of ↓ CO2 and CC allocation

2. Pooling loans to low-carbon projects

3. Tranching the risks and matching investors’ risks profiles

4. Public guarantee on the value of CC in case of default

Governments

Public investment bank

Low-carbon projects

Private savings

Political agreement on the VCRA

MRV authority

« green » loans

Loans pooling

Green bonds

Coupons ($)

$
Harnessing the Animal Spirits of Finance to support a Green Growth New Deal

1. After the end of Bretton Woods there is no Anchor to the ‘Commerce of Promises’

2. An agreed upon SVMA could be such an anchor expressing the value of a ‘common good’

3. It would end ultimately into climate friendly monetary and financial reforms

4. It would generate a new class of assets to compensate for the devalorisation of existing classes of assets

5. It would bridge the ‘credibility gap’ of climate policies and really support the shifting of Trillions of dollars/euros....

6. It would help untying the Environment Gordian Knot and solving the ‘100G$ and beyond’ commitments of the Paris Agreement