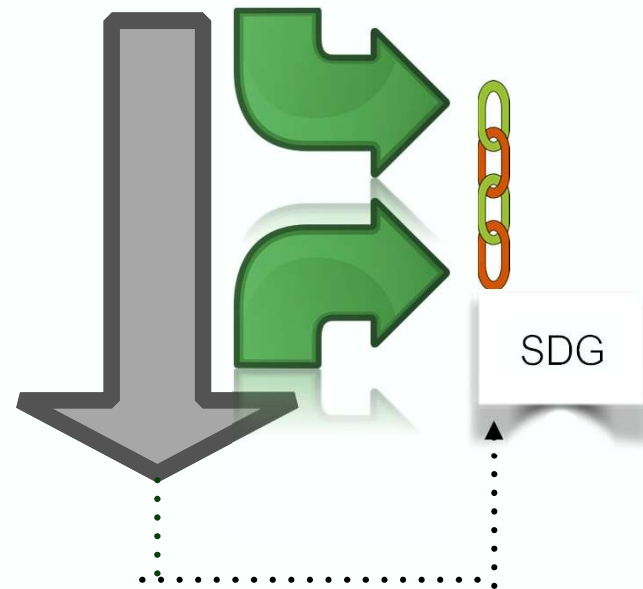


How Can Blockchain Technology Help Us To Finance SDGs?



Stefan Brunnhuber
UN Geneva April 2018

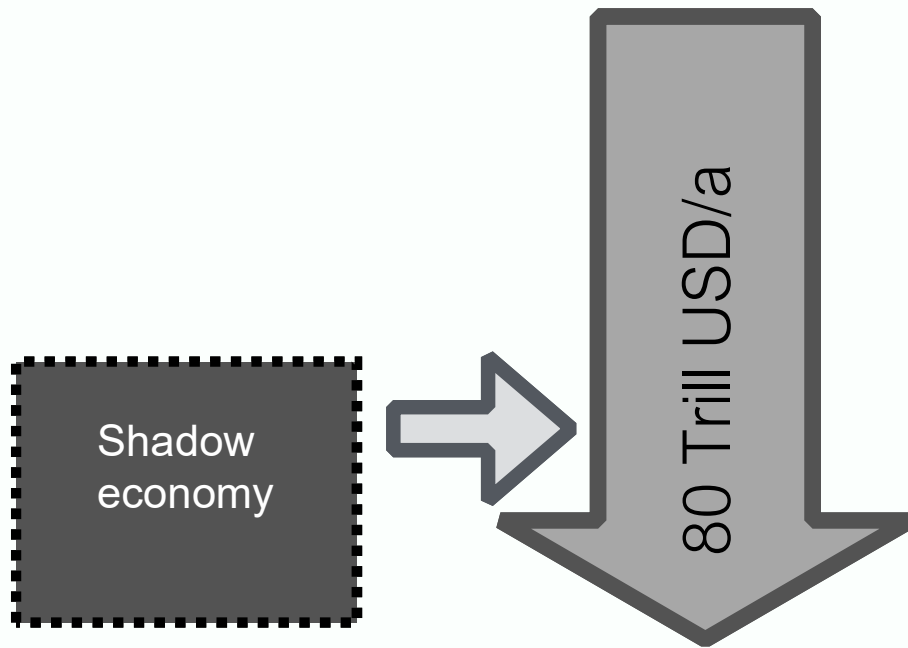
How to Finance our Future?

,Why this is so difficult...'

- SDG's: 5 Trill USD annually in total
- The system is unstable: >10 events annually
- Resistent to change: Multiple Lock-in effects
- Takes a century to balance the world
- SDG's: 2/3 are global commons
- Global Commons: ROI of 1:10 - 1:100
- Changing the Mind-set: Additional liquidity required

The global value chain simplified:

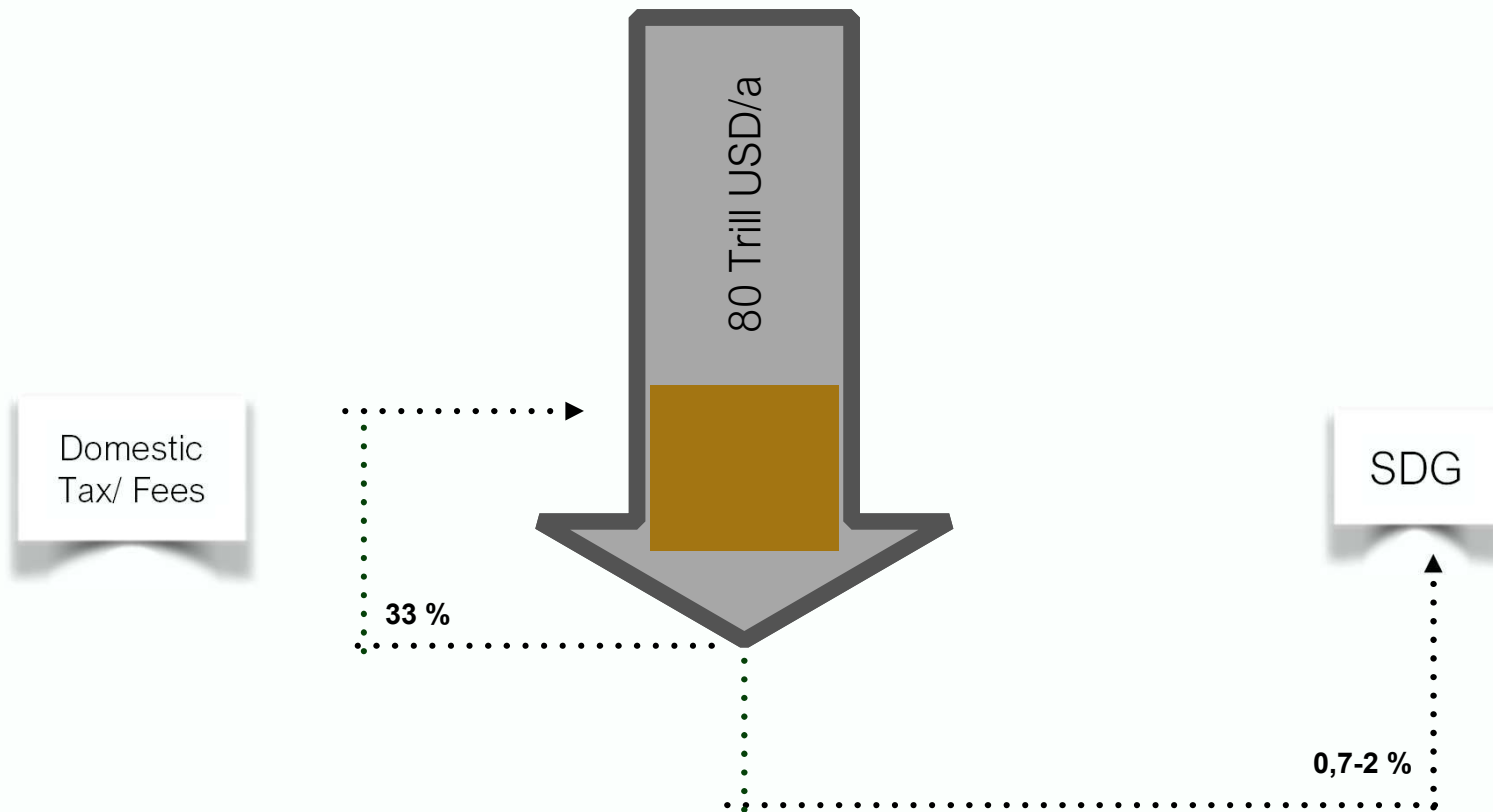
Central banks - Commercial Banking - Goods and Services - Shadow market and the Rest...



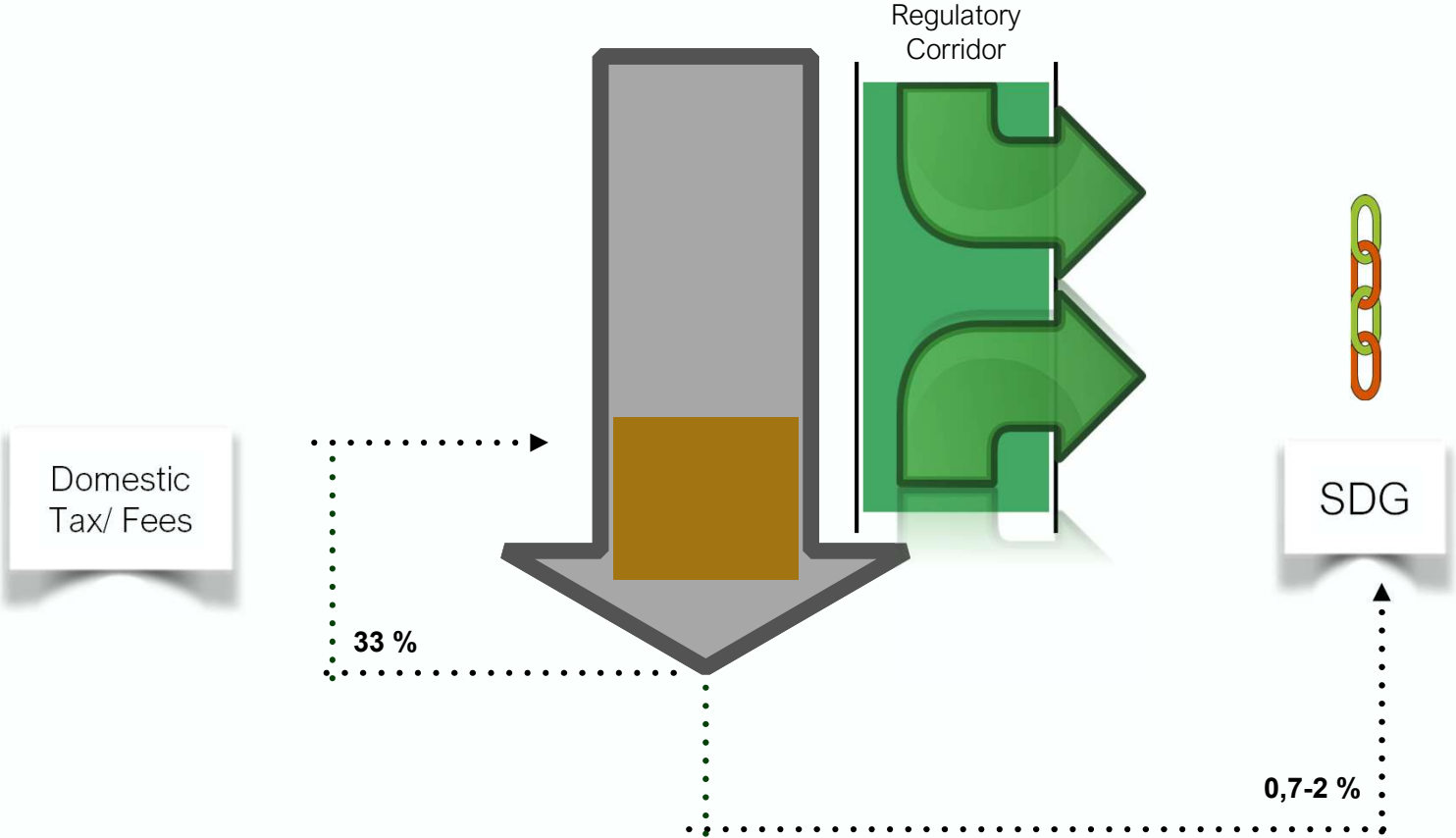
The Rational of the conventional approach:

„Redistribute money through taxation - fees - philanthropy in order to finance SDG’s:

End-of-Pipe-Financing...’



The Rational Behind The Block Chain Technology: *,Complementary - Parallel - Optional - Regulated - Liquidity Beyond Redistributing Money to Finance SDG's....'*

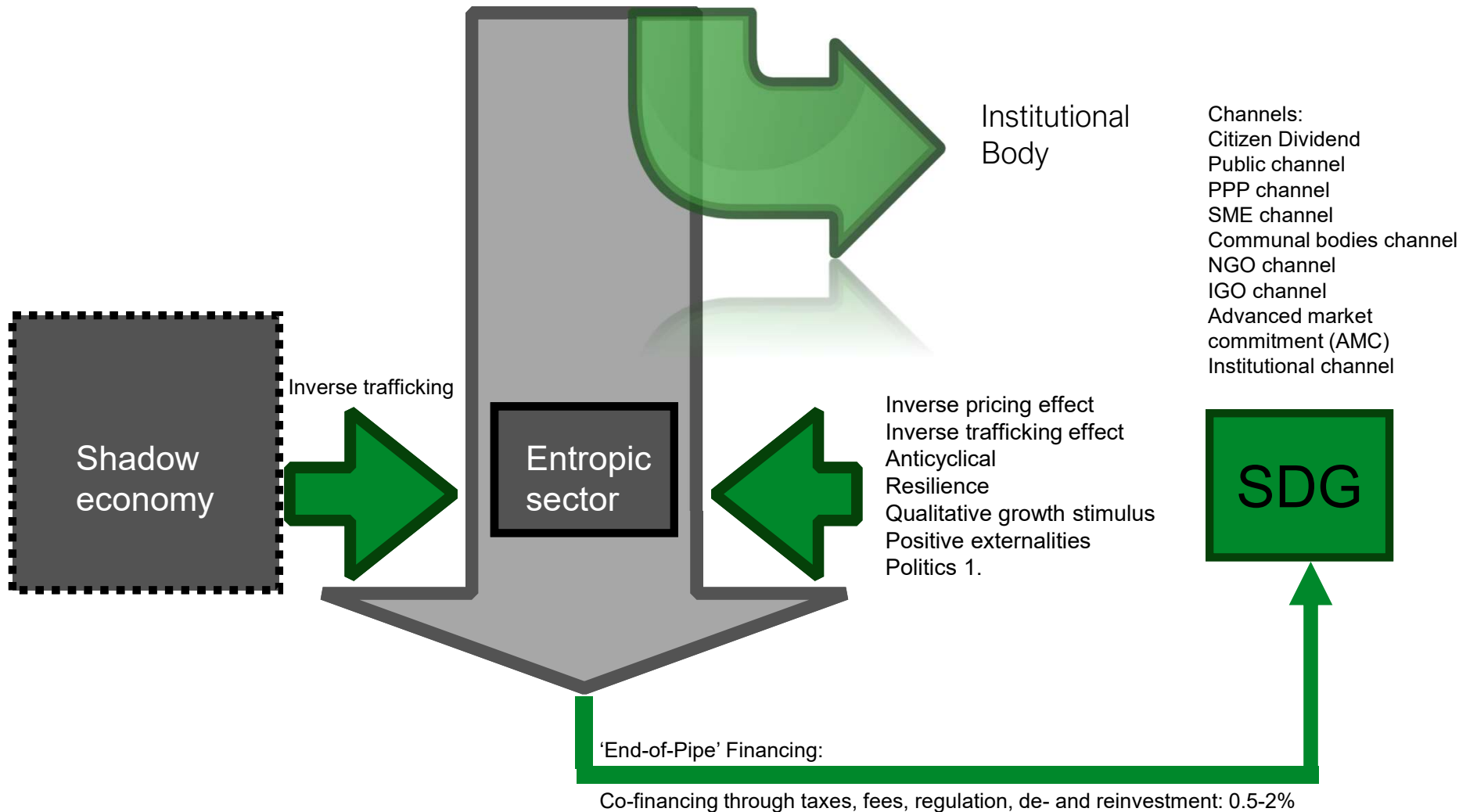


Why Blockchain associated Technology?

- **Trust** (Social Capital)
- **Transparency** (Tax Evasion, Fraud, illicite Transactions, Corruption)
- **Targeted** (Ensured investment/consumption - smart contract)
- **Resilience** (anti-cyclical, steering, regional, sectoral wealth)
- **Pareto-superior** (Jobs, negative Externalities, green growth, tax revenues, stabilizing CPI)

The Full Picture: A Systemic Approach To SDG's

„Like riding a bike with two wheels...“



Sustainability Development Solutions:

*,No silo - non reductionist - multi-stake and multi level
Don't miss: Monetary Regulator...'*



Summary: How can blockchain technology help us to finance the SDGs?

Parallel - additional - regulated - targeted Liquidity (1 Trill USD/a)

BC ensures a mechanism that enables humans to shift towards SDG's (do not rely on CSR, charity, voluntary commitment, resolutions or moral imperative, taxes or fees)

F.ex.: 3. Generation BC: Regulated - permission - skyledger - obelisk
no mining or transaction costs, 300/sec

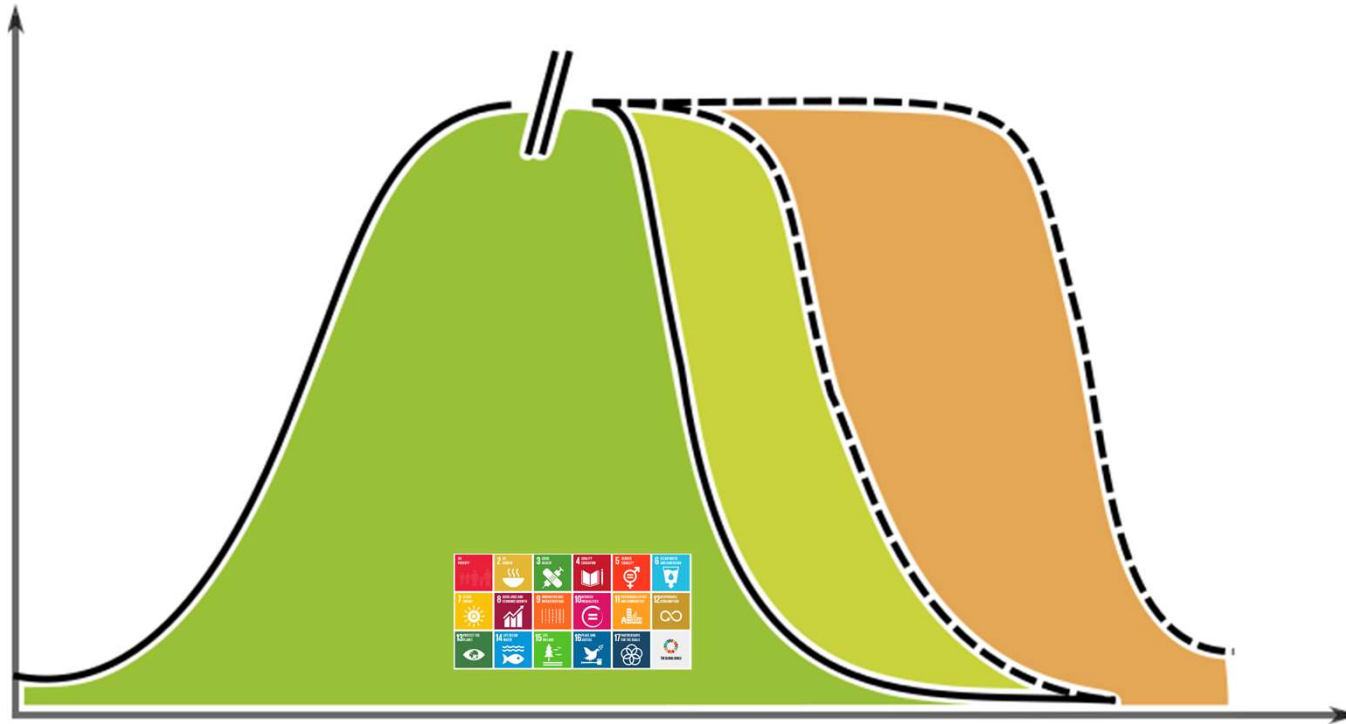
If done in the right way: cheap - fast - resilient - fair

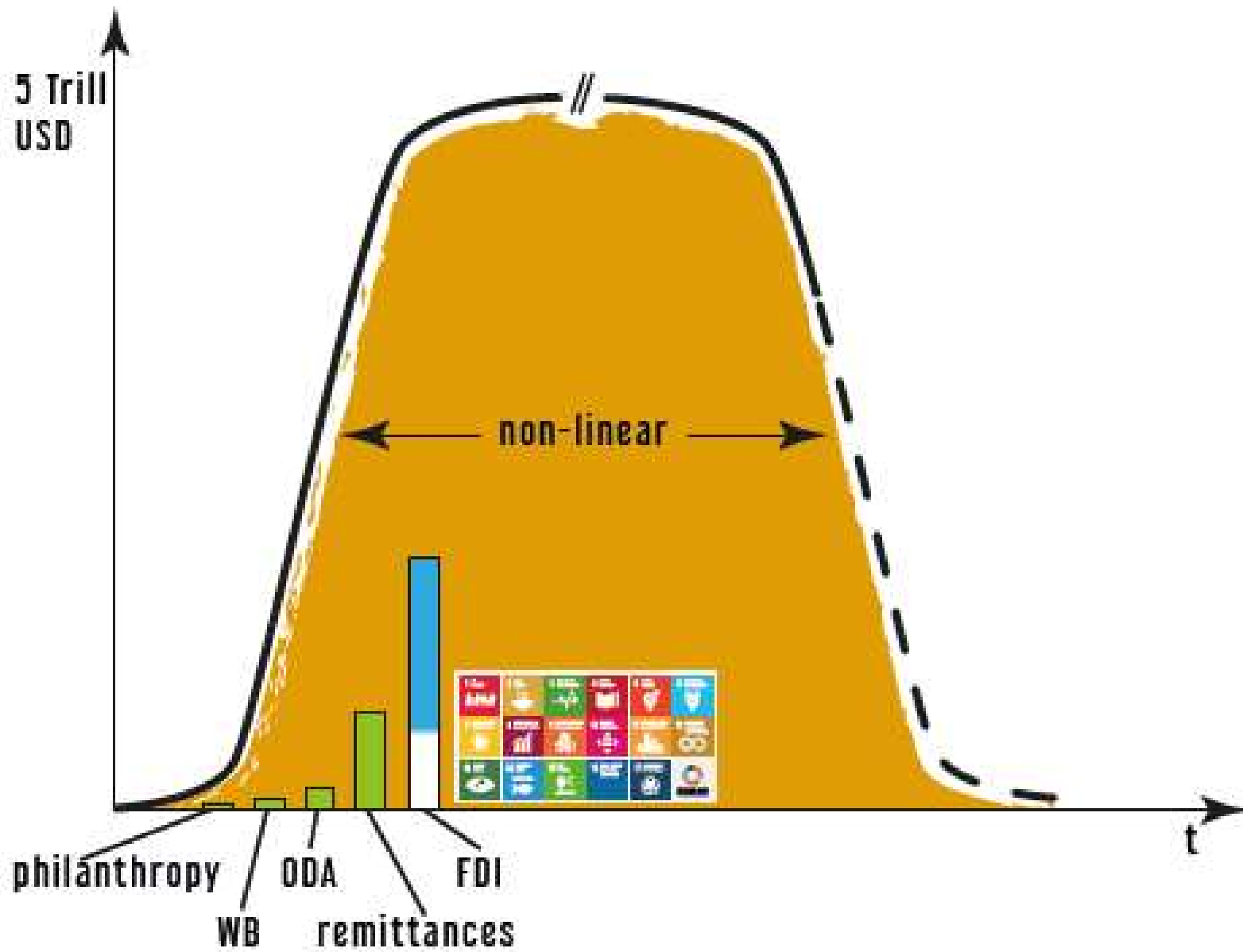
Pareto-superior

***"When the wind of change blows,
some build walls and the other windmills."***

- Chinese Proverb -

The Total Asset Approach (TAA): We are living in a Complex - Coupled - Chaotic World





Getting the Figures Right: The Wealth Equation

Average 1 Trill additional, optional, green QE

$$(I) \quad WE = \frac{L \times ROI \times M}{y} (df)$$

Key:

WE: Wealth effect generated by a parallel currency

L: Additional liquidity created by the central bank

ROI: Return on Investment per project realized

M: Keynes's demand multiplier

y: Annual adjustment

df: % default of failed projects

- (II) SDG Bill: 4-5 Trill annually
- (III) 1/3 of the SDG do have a private property, require PPP or private Investments
- (IV) 2/3 are linked to common goods and require a different approach (2,5-3 Trill)
- (V) M0 of CB is 7 Trill to generate 70-80 Trill in global GDP
The missing 2,5-3 Trill for the SDG require 1/10 in MO
of the CB: 300 Bill extra USD annually,
- (VI) Because some projects are running through different channels than the traditional ones,
there is more liquidity required: 500-1500 Bill extra USD annually.
Average 1 Trill additional, optional green QE, block chain driven would steer the world economy
towards a pareto-superior equilibrium

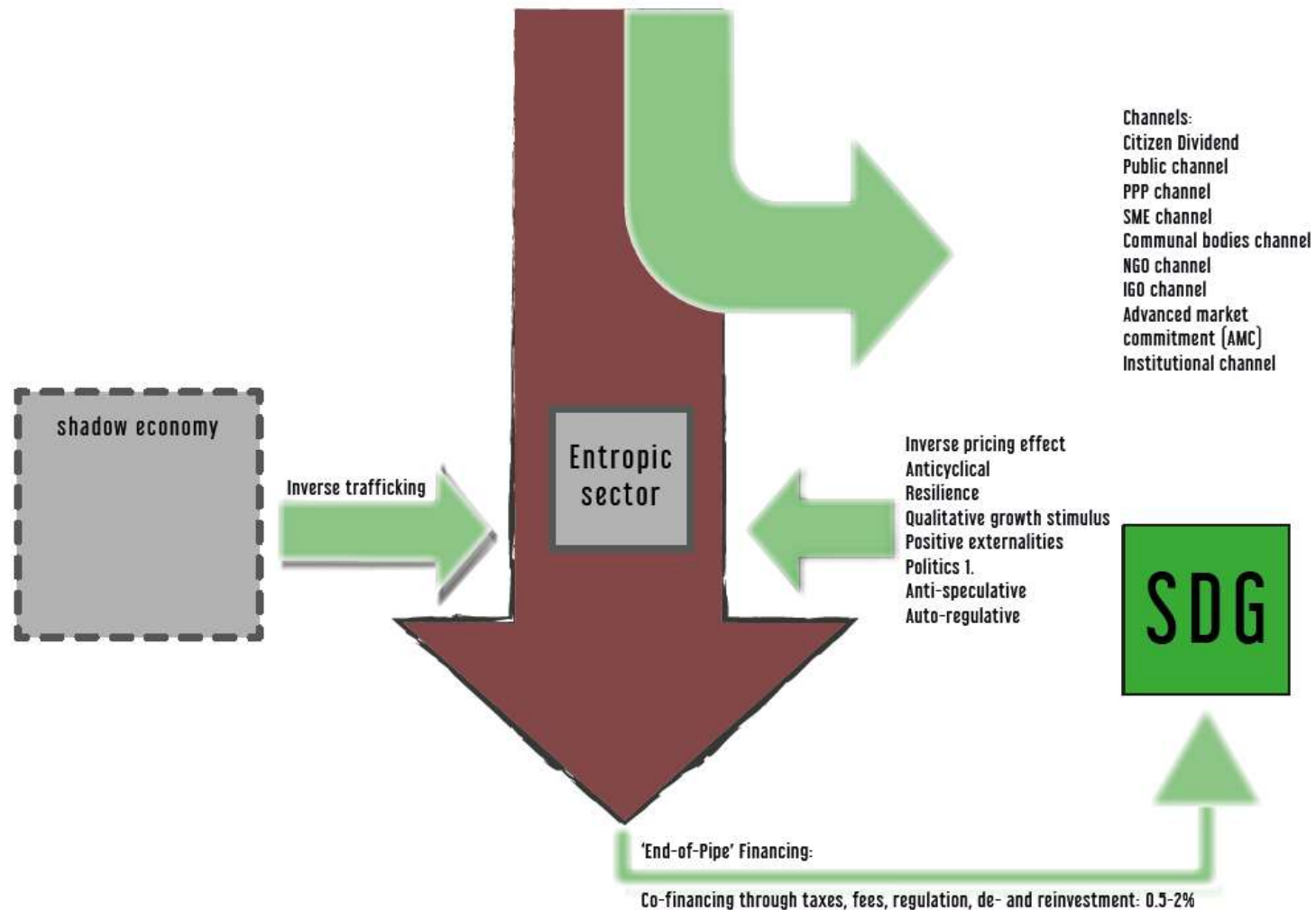
The Wealth Effect:

$$WE = \frac{L \times ROI \times M}{y} (df)$$

Key:

- WE: Wealth effect generated by a parallel currency
- L: Additional liquidity created by the central bank
- ROI: Return on Investment per project realized
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- y: Annual adjustment
- df: % default of failed projects

A Systems Approach: Green Growth - Positive Externalities - Jobs Anticyclical - Political Self Efficacy



Getting the Figures right:

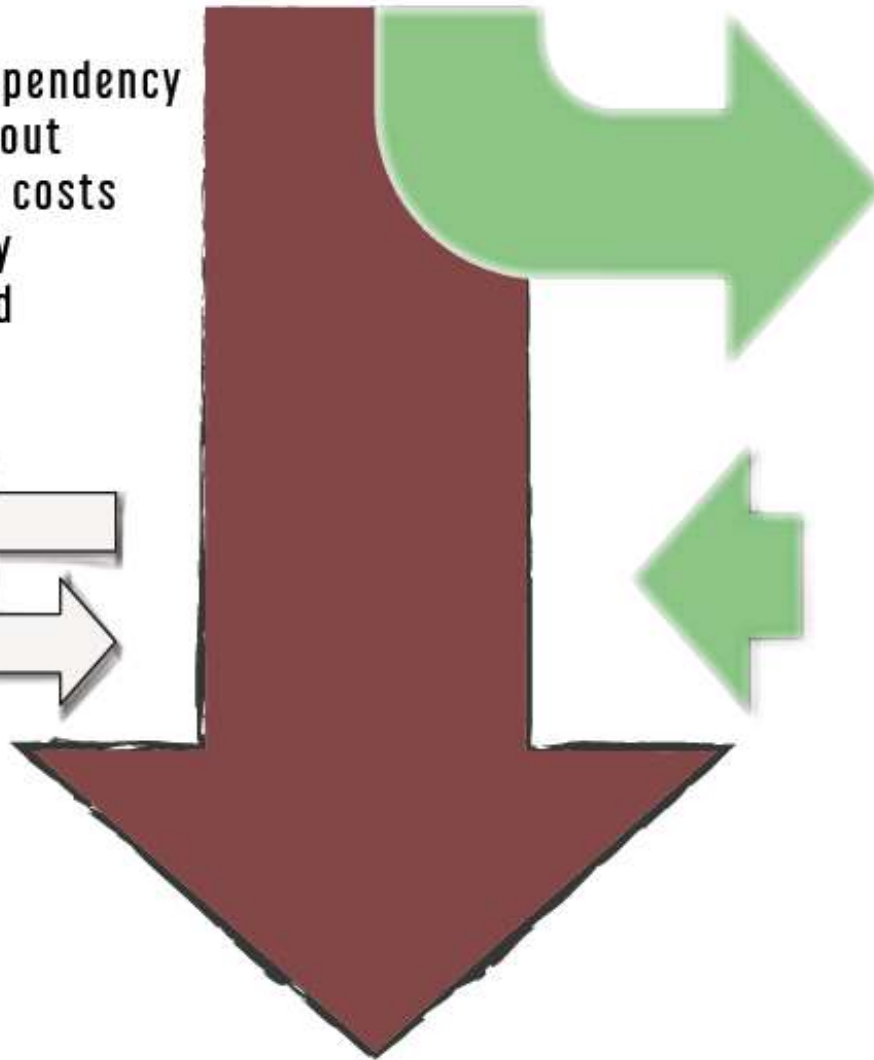
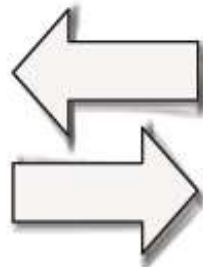
SDG's:	5,0	Trill USD
1/3 private investment components	1,5	Trill USD
2/3 commons goods	3,5	Trill USD
<hr/>		
Additional (Top down) Liquidity*	0,3	Bill USD
additional channels	1,2	Trill USD
Additional Liquidity (sum)	appr. 1,5	Trill USD
<hr/>		

*CB (M0 of 7 Trill to generate 80 Trill of global GDP), equals appr. 8-10%

A 3 C World requires a 3 C Mind:

“Living in a 3-C world (complex - chaotic - connected) requires a 3-C mind. However, only a small portion (< 3-5%) of humans are capable of generating enough internal complexity, non-linear thinking and interconnectedness to guaranty this kind of behavioral shift on a constant level. The vast majority of us require an extrinsic, external institutional support system, that enables and ensures a permanent shift in our behaviors. C.O.P.E can do so...”

Locked-in
Fossil dependency
Crowding out
Defensive costs
Instability
Debts load



POLITICS 1.

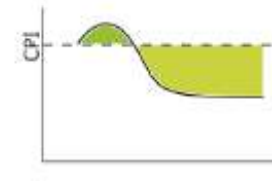
Democracy
Tax revenues



Jobs



Negative External Effects



Inverse Pricing



Anticyclical Steering