

Securitizing and Tokenizing Green Cash- Flows

University of Luxembourg
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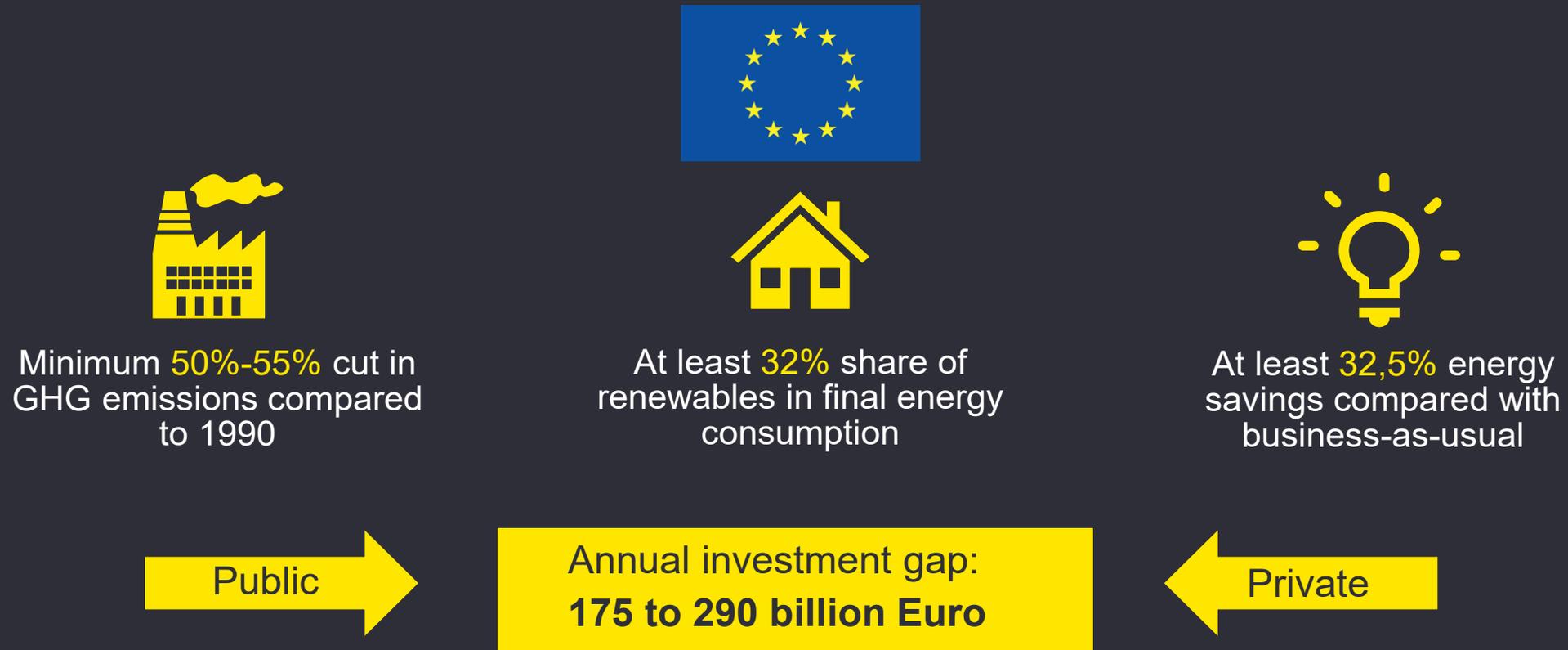


BASED ON ANKER-SØRENSEN & ZETZSCHE,
SECURITIZING & TOKENIZING GREEN CASH-FLOWS, WORKING PAPER (2021)

The EY logo, consisting of the letters 'EY' in a bold, white, sans-serif font. The 'E' and 'Y' are connected at the top. A yellow triangle is positioned above the 'Y'.

Building a better
working world

1 Large funding gap exists to fulfill ambitious EU 2030 targets



1 Research Objective



- European Commission: further investments in „sustainable assets“
- Inquiry: ways to further investments into „pure“ sustainable assets?
- Blending Best Practices from capital management with SF objectives

Content

- 01** Introduction (+)
- 02** Identifying „Green“ Cash-Flows under the EU Taxonomy
- 03** Securitizing segregated cash-flows
- 04** Policy Considerations: How to segregate Green Cash-Flows?
- 05** Conclusion

2 Identifying Green Cash-flows under the EU Taxonomy

*EU Taxonomy live webcast – 12 March 2020



- ▶ 70 Mitigation activities
- ▶ 68 Adaptation activities

- ▶ Taxonomy includes guidance on considerations for DNSH across the 5 other objectives

- ▶ Covers the Social and Governance considerations (eg. Labour rights and anti-corruption)

2 Non-financial Undertakings

Non-financial undertakings - KPIs

- Turnover KPI → *Turnover from products / services associated with environmentally sustainable economic activities (Art. 3 and 9 TR)*

Net Turnover (Art. 2(5) of the Accounting Directive)
- CapEx KPI → *CapEx related to assets / processes associated with environmentally sustainable economic activities (Art. 3 and 9 TR)*

CapEx
- OpEx KPI → *Opex related to assets / processes associated with environmentally sustainable economic activities (Art. 3 and 9 TR)*

OpEx

*Source: ESMA30-379-471

2 Non-financial Undertakings: *Template for KPIs on Turnover - Annex V ESMA*

Economic activities (1)	Code(s) (2)	Absolute turnover (3) Currency	Proportion of turnover (4) %	Substantial contribution criteria						DNSH criteria (Do No Significant Harm')						Minimum safeguards (17) Y/N	Taxonomy-aligned proportion of turnover, year N (18) Percent	Taxonomy-aligned proportion of turnover, year N-1 (19) Percent	Category (enabling activity / transitional activity) (20) E/T
				Climate change mitigation (5) %	Climate change adaptation (6) %	Water and marine resources (7) %	Circular economy (8) %	Pollution (9) %	Biodiversity and ecosystems (10) %	Climate change mitigation (11) Y/N	Climate change adaptation (12) Y/N	Water and marine (13) Y/N	Circular economy (14) Y/N	Pollution (15) Y/N	Biodiversity and (16) Y/N				
A. ELIGIBLE ACTIVITIES																			
A.1. Eligible Taxonomy-aligned activities																			
Activity A			20%	50%*	0%	0%	0%	0%	0%		Y	Y	Y	Y	Y	Y	10%		E
Activity B			11%	0%	0%	100%	0%	0%	0%	Y	Y		Y	Y	Y	Y	11%		
Turnover of eligible Taxonomy-aligned activities (A.1)			31%	10%	0%	11%	0%	0%	0%								21%		10%**
A.2 Eligible not Taxonomy-aligned activities																			
Activity D			18%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	0%		T
Activity E			20%	50%	0%	0%	0%	0%	0%	Y	Y	N	Y	Y	Y	Y	0%		
Turnover of eligible not Taxonomy-aligned activities (A.2)			38%																
Total (A.1 + A.2)			69%	10%	0%	11%	0%	0%	0%								21%		10%*
B. NON-ELIGIBLE ACTIVITIES																			
Turnover of non-eligible activities (B)			31%																
Total (A + B)			100%																

2 Non-financial Undertakings: *Template for KPIs on OpEx - Annex V ESMA*

Economic activities (1)	Code(s) (2)	Absolute OpEx (3) Currency	Proportion of OpEx (4) %	Substantial contribution criteria						DNSH criteria (Do No Significant Harm')						Minimum safeguards (17) Y/N	Taxonomy-aligned proportion of OpEx, year N (18) Percent	Taxonomy-aligned proportion of OpEx, year N-1 (19) Percent	Category (enabling activity / transitional activity) (20) E/T
				Climate change mitigation (5) %	Climate change adaptation (6) %	Water and marine resources (7) %	Circular economy (8) %	Pollution (9) %	Biodiversity and ecosystems (10) %	Climate change mitigation (11) Y/N	Climate change adaptation (12) Y/N	Water and marine (13) Y/N	Circular economy (14) Y/N	Pollution (15) Y/N	Biodiversity and ecosystems (16) Y/N				
A. ELIGIBLE ACTIVITIES																			
A.1. Eligible Taxonomy-aligned activities																			
Activity A			8%	100%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	8%	E	
Activity B			15%	0%	0%	100%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	15%		
OpEx of eligible Taxonomy-aligned activities (A.1)			23%	8%	0%	15%	0%	0%	0%								23%	8%*	
A.2 Eligible not Taxonomy-aligned activities																			
Activity D			12%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	0%	T	
Activity E			22%	50%	0%	0%	0%	0%	0%	Y	Y	N	Y	Y	Y	Y	0%		
OpEx of eligible not Taxonomy-aligned activities (A.2)			34%	0%	0%	0%	0%	0%	0%										
Total (A.1 + A.2)			57%	8%	0%	15%	0%	0%	0%								23%	8%*	

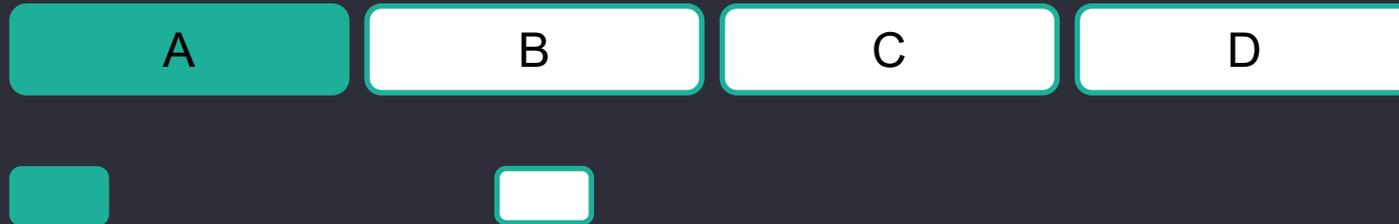
2 Non-financial Undertakings: *Template for KPIs on CapEx - Annex V ESMA*

Economic activities (1)	Code(s) (2)	Absolute CapEx (3) Currency	Proportion of CapEx (4) %	Substantial contribution criteria						DNSH criteria (Do No Significant Harm')						Minimum safeguards (17) Y/N	Taxonomy-aligned proportion of CapEx, year N (18) Percent	Taxonomy-aligned proportion of CapEx, year N-1 (19) Percent	Category (enabling activity / transitional activity) (20) E/T
				Climate change mitigation (5) &	Climate change adaptation (6) %	Water and marine resources (7) %	Circular economy (8) %	Pollution (9) %	Biodiversity and %	Climate change mitigation (11) Y/N	Climate change adaptation (12) Y/N	Water and marine Y/N	Circular economy (14) Y/N	Pollution (15) Y/N	Biodiversity and Y/N				
A. ELIGIBLE ACTIVITIES																			
A.1. Eligible Taxonomy-aligned activities																			
Activity A			30%	100%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	30%		E
Activity B			15%	0%	0%	100%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	15%		
CapEx of eligible Taxonomy-aligned activities (A.1)			45%	30%	0%	15%	0%	0%	0%								45%		30%*
A.2 Eligible not Taxonomy-aligned activities																			
Activity D			17%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	0%		T
Activity E			30%	50%	0%	0%	0%	0%	0%	Y	Y	N	Y	Y	Y	Y	0%		
CapEx of eligible not Taxonomy-aligned activities (A.2)			47%																
Total (A.1 + A.2)			92%	30%	0%	15%	0%	0%	0%								45%		30%*

Importance of CapEx

Company X discloses portion of economic activities taxonomy-aligned

- Based on share of turnover: share of green activities is 20% in 2020
- Company has plans to:
 1. Manufacture only EVs in plant B
 2. Increase energy efficiency of building D and make it flood resilient
 3. Invest in R&D to improve electric batteries performance by 2025
- Based on share of CapEx: share of green activities higher than 20% in 2020



Importance of CapEx as KPI to assess whether companies have credible and “measurable” plans to sustainable transition.



2 Asset Managers

- KPI 
$$\frac{\text{Value Green Bonds (under EU GBS)} + \text{Weighted average of the value of the investments invested in Taxonomy-aligned activities of investee companies}}{\text{Value of all investments}}$$



2 Insights

SF Taxonomy will, for the most part, result in mixed portfolios since

- either the business is not 100% "green" or
- part of the business is not within scope of the Taxonomy.

⇒ Investing into the firm as a whole does not result in “environmentally sustainable investments” (ESI)

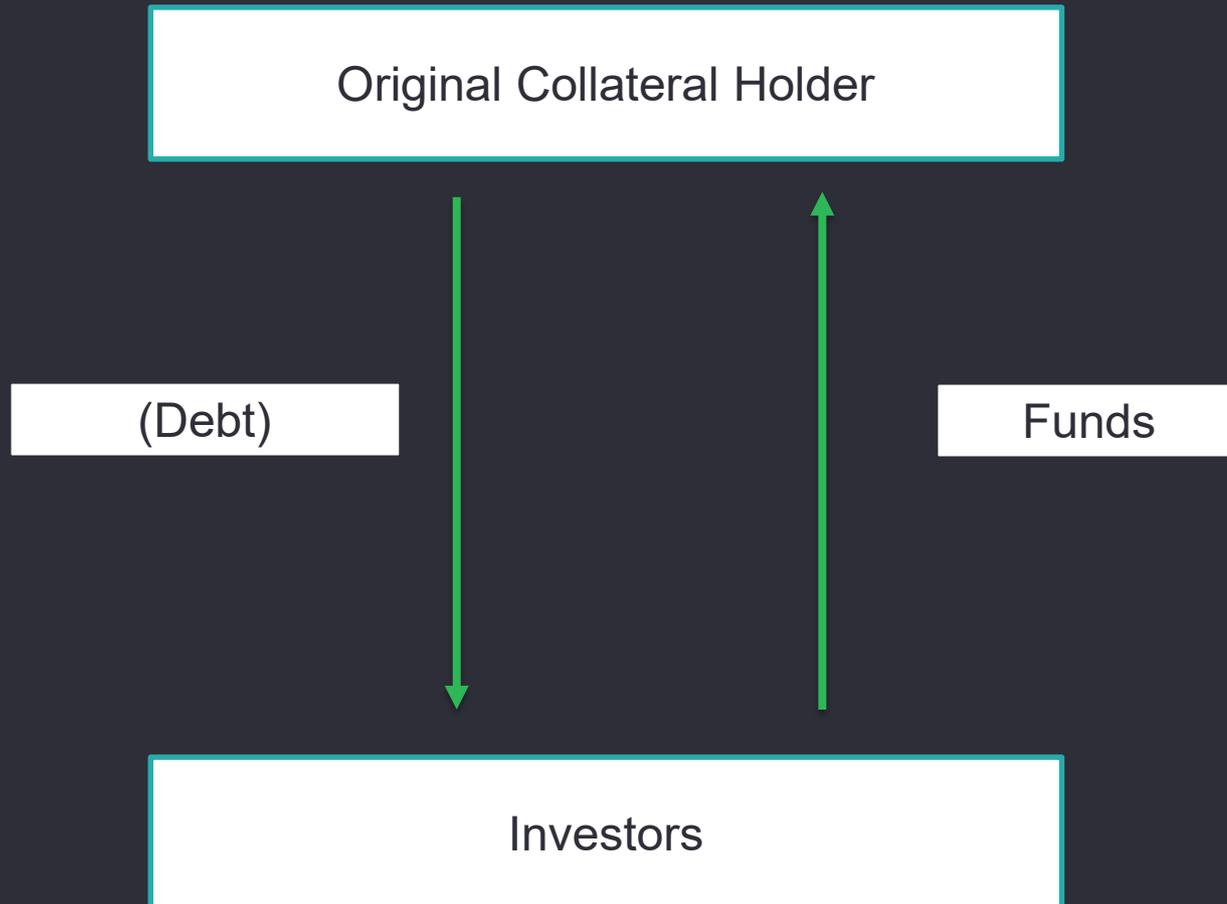
⇒ Same is true for Socially Sustainable Investments (SSI) to be identified using the forthcoming SSI taxonomy

⇒ Segregation of cash flows from business necessary

⇒ That is the function of securitization and tokenization

⇒ Enhanced need for SF purposes

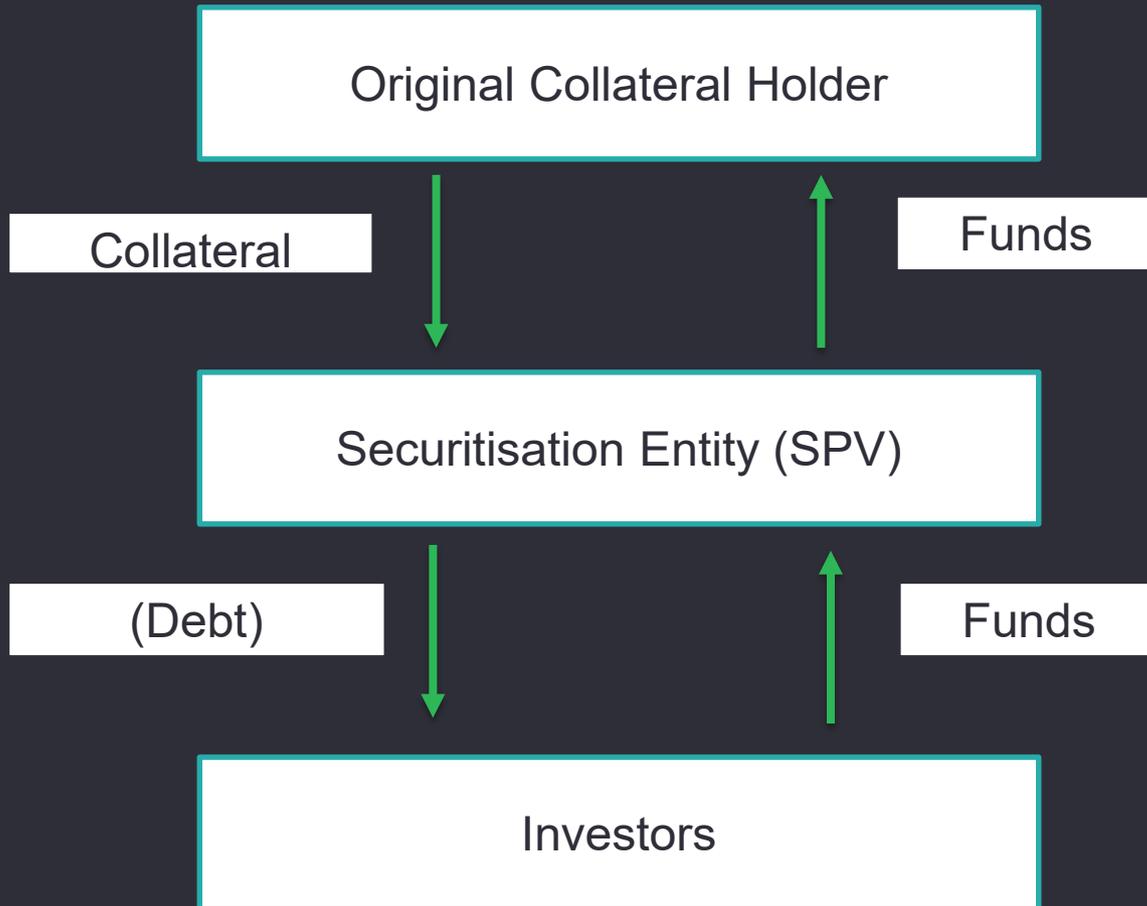
3 Securitizing segregated Cash-flows – „securitization“ from Original Asset Holder



Issue:

- Assets on the balance sheet share profitability and insolvency risk of Original Asset Holder
- Resulting in „mixed“ Sustainability Imprint

3 Securitizing segregated Cash-flows – True Sale Securitization

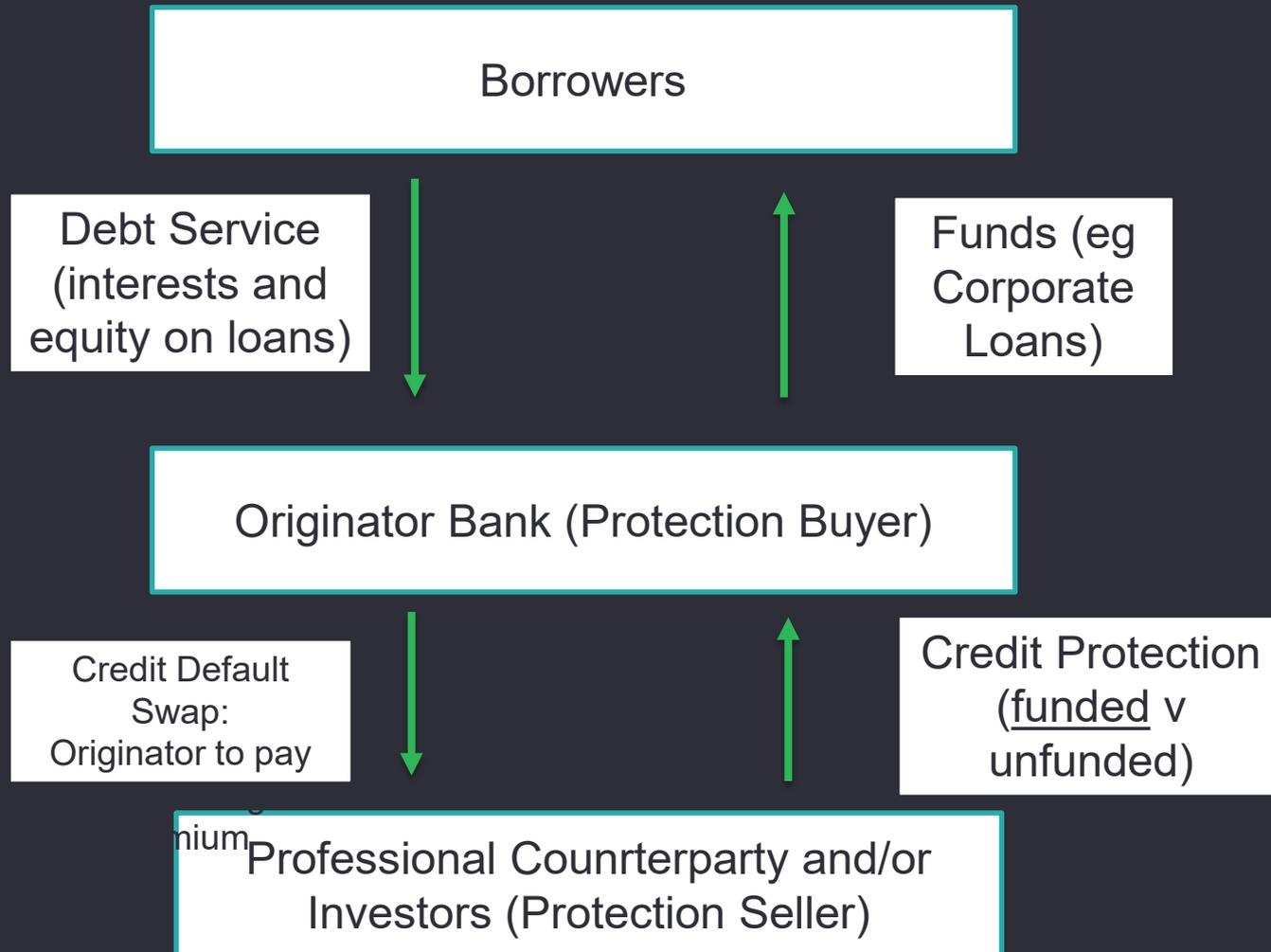


Preferred option if Cash-flow bearing items can be easily segregated from production context (eg loans from car financing entities for acquisition of “Green” vehicles)

Issues:

- Certain „sustainable assets“ locked into productive context („a part of the business“);
- Full Asset Transfer may be undesirable

3 Securitizing segregated Cash-flows – Synthetic Securitization from Originator



Option for off-loading credit risk from Bank Balance Sheet to free RWA and regulatory capital

(eg loans from car financing entities for acquisition of “Green” vehicles)

Issue:

- Only indirect contribution; not suitable for all SF assets („risky“ SMEs? – no bank lender)
- Suitable for debt, unsuitable for equity context

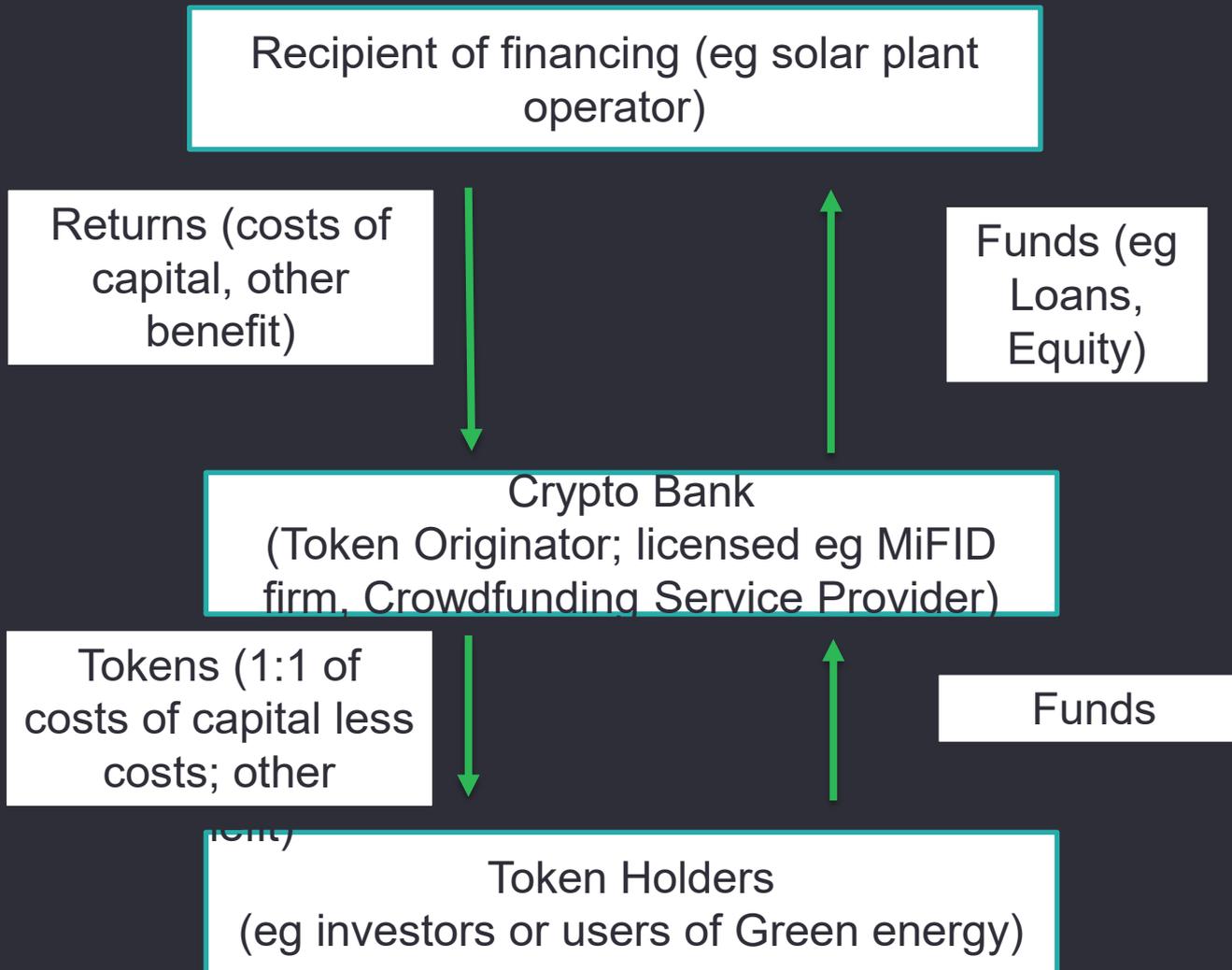
3 Intermediate Results

- Capital Management techniques appropriate if sustainable cash flow is identified and segregable
 - Example: Indirect financing of “green” investments, production facilities through bank loans
- Capital Management techniques insufficient where
 - Direct (equity) financing is required, but collateral holders operates mixed portfolio,
 - SMEs require (equity or debt) financing: banks in this sector passive

4 Policy Considerations - SMEs

- SMEs: issue of size vs risks
 - SME lending funds, Venture Capital funds
 - Low volume so far; crowdfunding?
 - Consider tax incentives? (social return > private returns)
 - Yet here again: identification and segregation of Green cash-flows.

4 Policy Considerations – SMEs: Tokenization



Functionally similar to Securitization from Originator

Tokens may be functionally equivalent to securities, yet they may come with lighter regulatory requirements if cryptoasset under MiCAR (ie. not FI =>less burdensome prospectus)

Example: retail investors receive right to use certain KW in energy from solar plant operator

4 Policy Considerations - SMEs

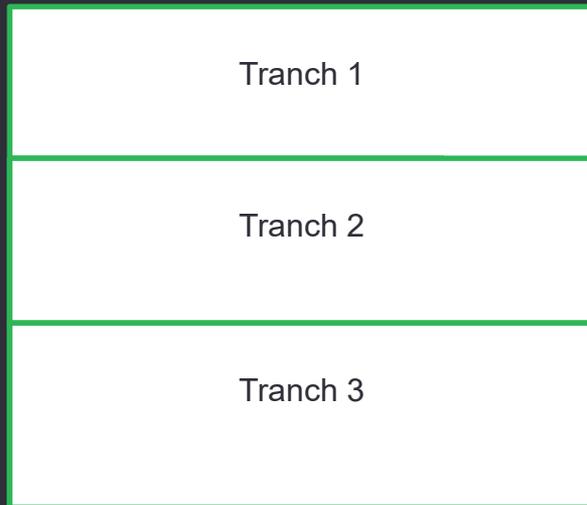
- Securitization and tokenization serve similar economic functions; intermediaries can function as securities OR token initiator; Identification and segregation of assets is a precondition for both securitization and tokenization.
- Token: greater appeal for certain retail investors than „simple debt securities“

4 Policy Considerations - SMEs

- SMEs: issue of size vs risks
 - SME lending funds, Venture Capital funds
 - Low volume so far; crowdfunding?
 - Consider tax incentives? (social return > private returns)
 - Yet here again: identification and segregation of Green cash-flows.

4 Policy Considerations – Direct Financing

- Introduce “Tracking Stocks” for sustainable parts of the business
 - **Segregation in insolvency:** register, similar to securitization
 - **Simplified accounting:** defined base interest + premium based on turnover/opex/capex share
 - **Governance:** articles of association + freeze-out right of residual shareholders



Conclusion



5 Conclusion & Thesis

- Application of SF Taxonomy to result in mixed cash flows: some parts of the income source will be taxonomy-aligned, others will either be „brown business“ or unreported.
- **Securitization** to support indirect financing, eg. credit by banks
- **Tokenization** as additional option for designing CMT, with appeal for sustainability-oriented retail; can reduce SME funding gap
- **Direct finance** of mixed portfolios: „*Sustainable Share Class*“: Tracking stock; detailed rules re insolvency, accounting, governance

Contact Details

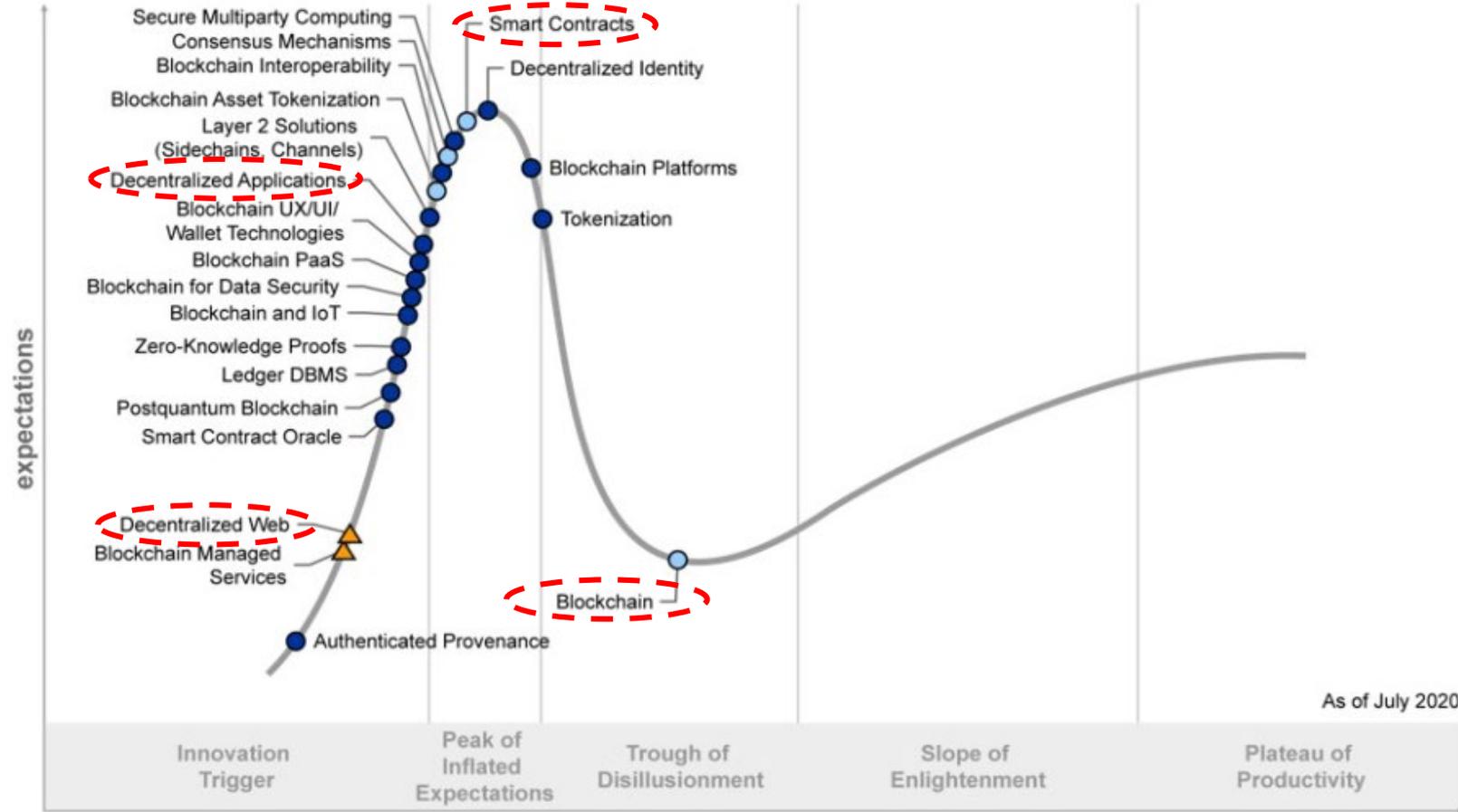


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Hype Cycle for Blockchain Technologies, 2020



Plateau will be reached:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

Source: Gartner