

Securitizing and Tokenizing Green Cash-Flows

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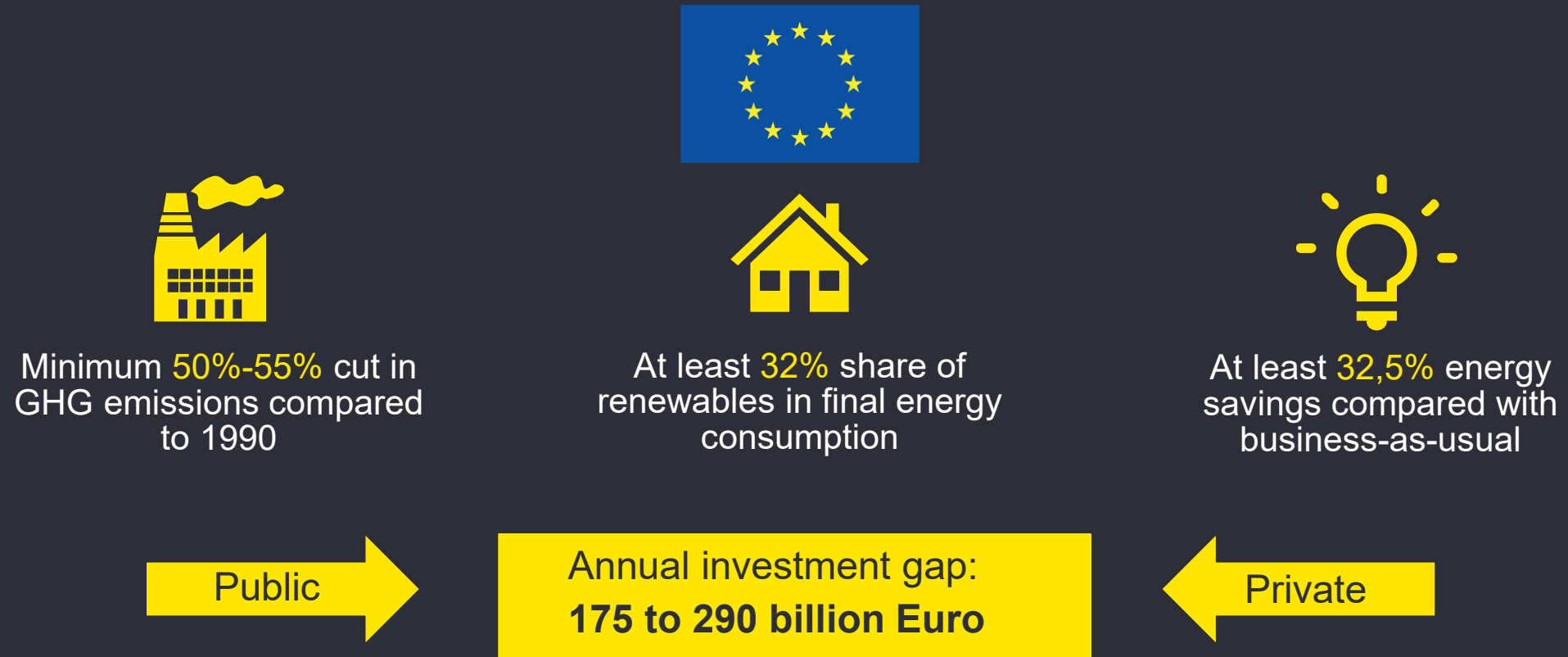


BASED ON ANKER-SØRENSEN & ZETZSCHE,
SECURITIZING & TOKENIZING GREEN CASH-FLOWS, WORKING PAPER (2021)



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	➡	<i>Turnover from products / services associated with environmentally sustainable economic activities (Art. 3 and 9 TR)</i> <hr/> <i>Net Turnover (Art. 2(5) of the Accounting Directive)</i>
■ CapEx KPI	➡	<i>CapEx related to assets / processes associated with environmentally sustainable economic activities (Art. 3 and 9 TR)</i> <hr/> <i>CapEx</i>
■ OpEx KPI	➡	<i>Opex related to assets / processes associated with environmentally sustainable economic activities (Art. 3 and 9 TR)</i> <hr/> <i>OpEx</i>

*Source: ESMA30-379-471

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

				Substantial contribution criteria						DNSH criteria (Do No Significant Harm')									
Economic activities (1)	Code(s) (2)	Absolute turnover (3)	Proportion of turnover (4)	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)	Climate change adaptation (12)	Water and marine	Circular economy (14)	Pollution (15)	Biodiversity and	Minimum safeguards (17)	Taxonomy-aligned proportion of turnover, year N (18)	Taxonomy-aligned proportion of turnover, year N-1 (19)	Category (enabling activity / transitional activity) (20)
	Currency		%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Percent	Percent	E/T
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*

				Substantial contribution criteria						DNSH criteria (Do No Significant Harm')									
Economic activities (1)	Code(s) (2)	Absolute OpEx (3)	Proportion of OpEx (4)	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)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safeguards (17)	Taxonomy- aligned proportion of OpEx, year N (18)	Taxonomy- aligned proportion of OpEx, year N-1 (19)	Category (enabling activity / transitional activity) (20)
		Currency	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Percent	Percent	E/T
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%*

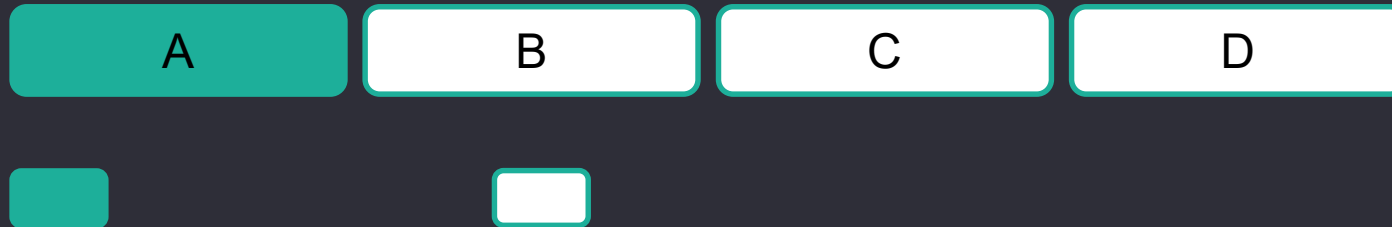
2 Non-financial Undertakings: *Template for KPIs on CapEx - Annex V ESMA*

Economic activities (1)	Code(s) (2)	Absolute CapEx (3)	Proportion of CapEx (4)	Substantial contribution criteria						DNSH criteria (Do No Significant Harm')						Minimum safeguards (17)	Taxonomy-aligned proportion of CapEx, year N (18)	Taxonomy-aligned proportion of CapEx, year N-1 (19)	Category (enabling activity / transitional activity) (20)
				Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine (13)	Circular economy (14)	Pollution (15)	Biodiversity and (16)		Percent	Percent	E/T
		Currency	%	&	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	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

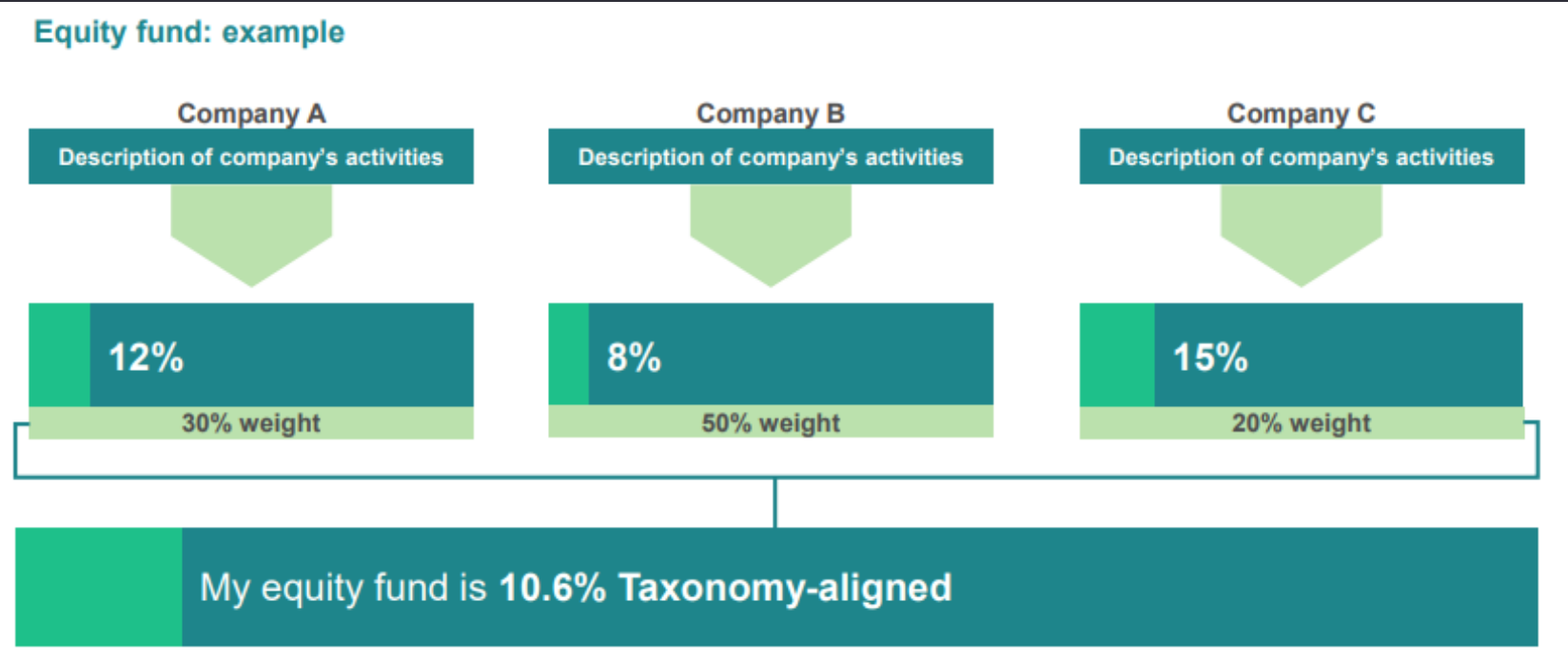
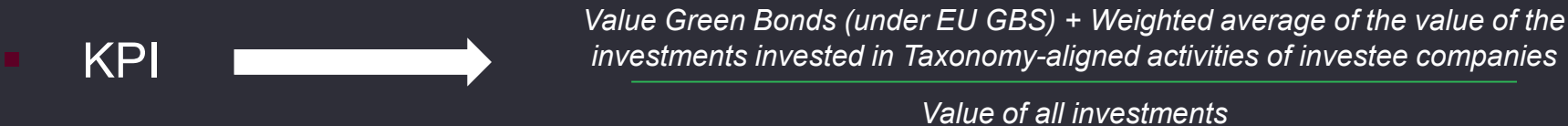
- Based on share of turnover: share of green activities is 20% in 2020
- Company has plans to:
 1. Manufacture only EVs in plant B
 2. Increase energy efficiency of building D and make it flood resilient
 3. Invest in R&D to improve electric batteries performance by 2025
- Based on share of CapEx: share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



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)

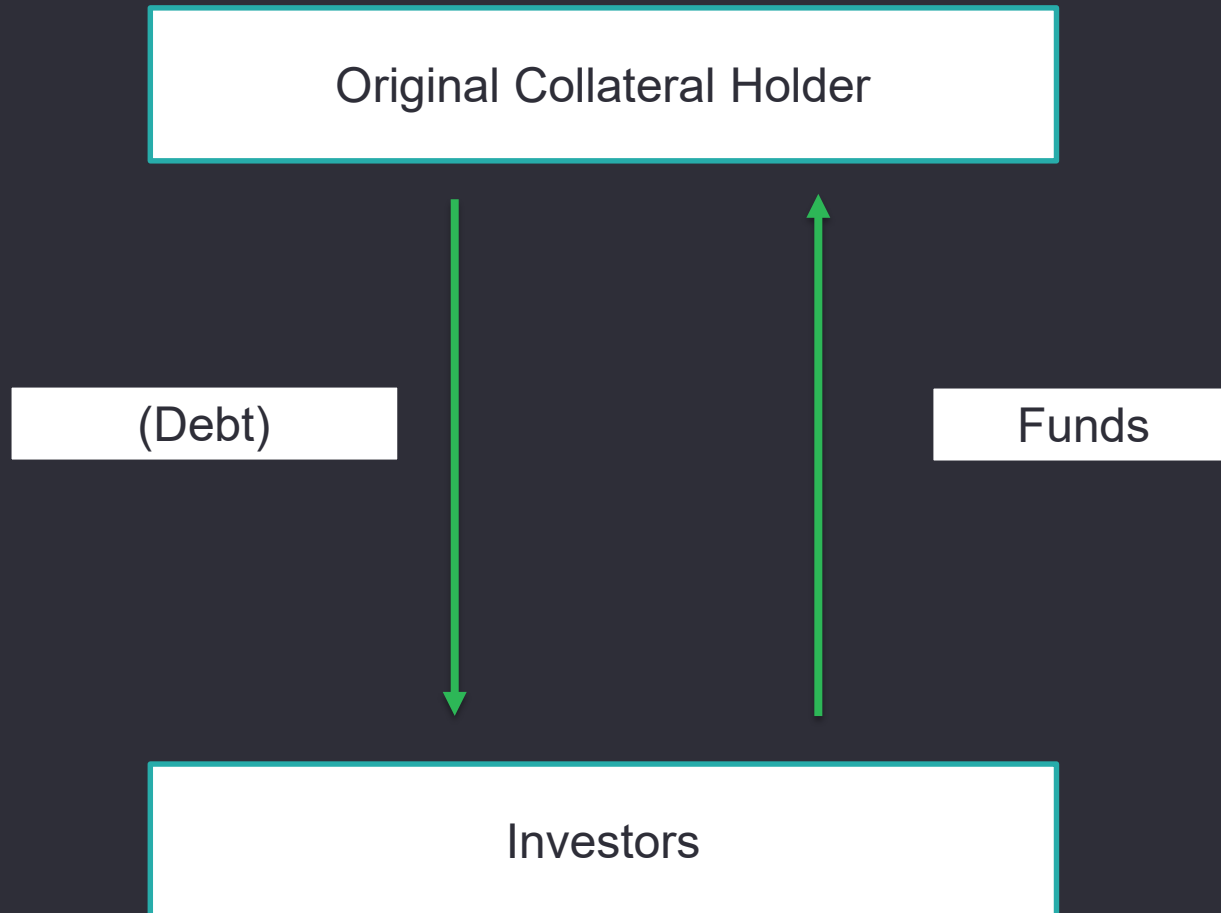
⇒ Same is true for Socially Sustainable Investments (SSI) to be identified using the forthcoming SSI taxonomy

⇒ Segregation of cash flows from business necessary

⇒ That is the function of securitization and tokenization

⇒ Enhanced need for SF purposes

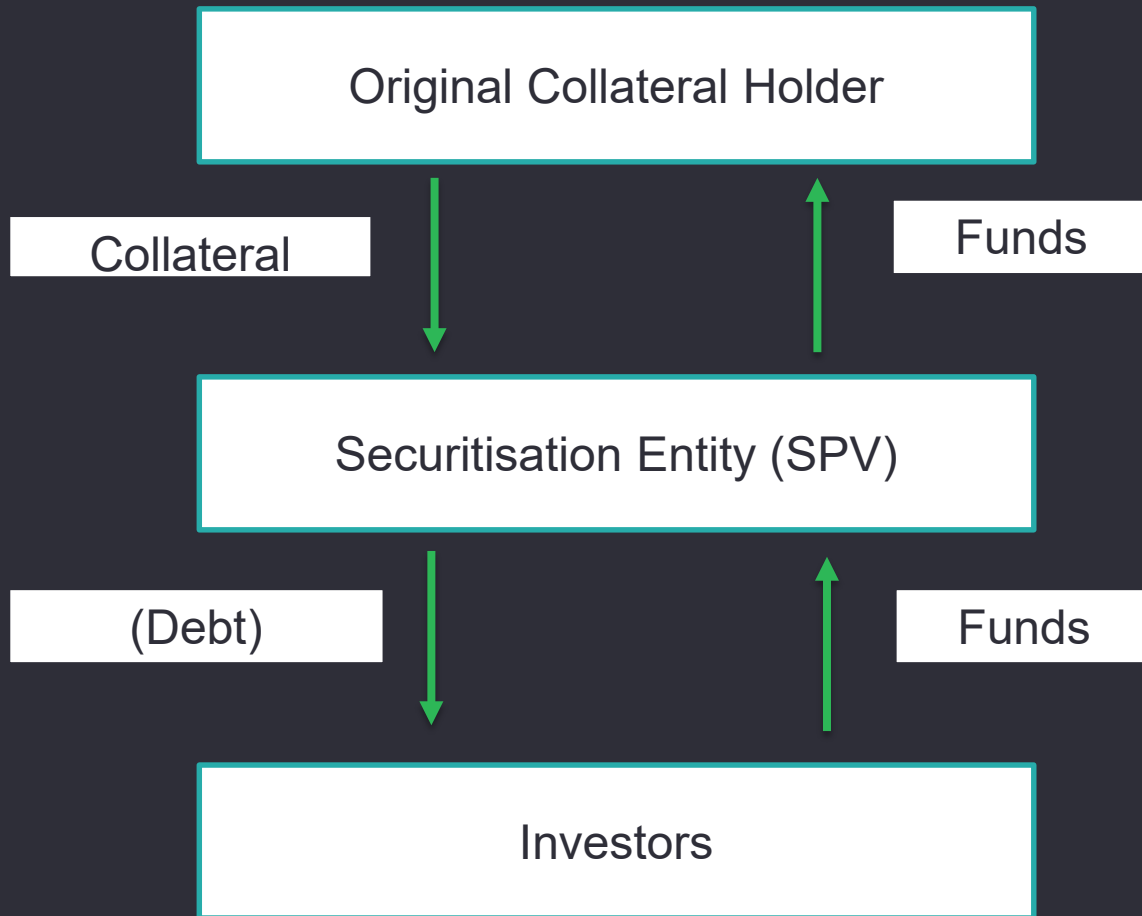
3 Securitizing segregated Cash-flows – „securitization“ from Original Asset Holder



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

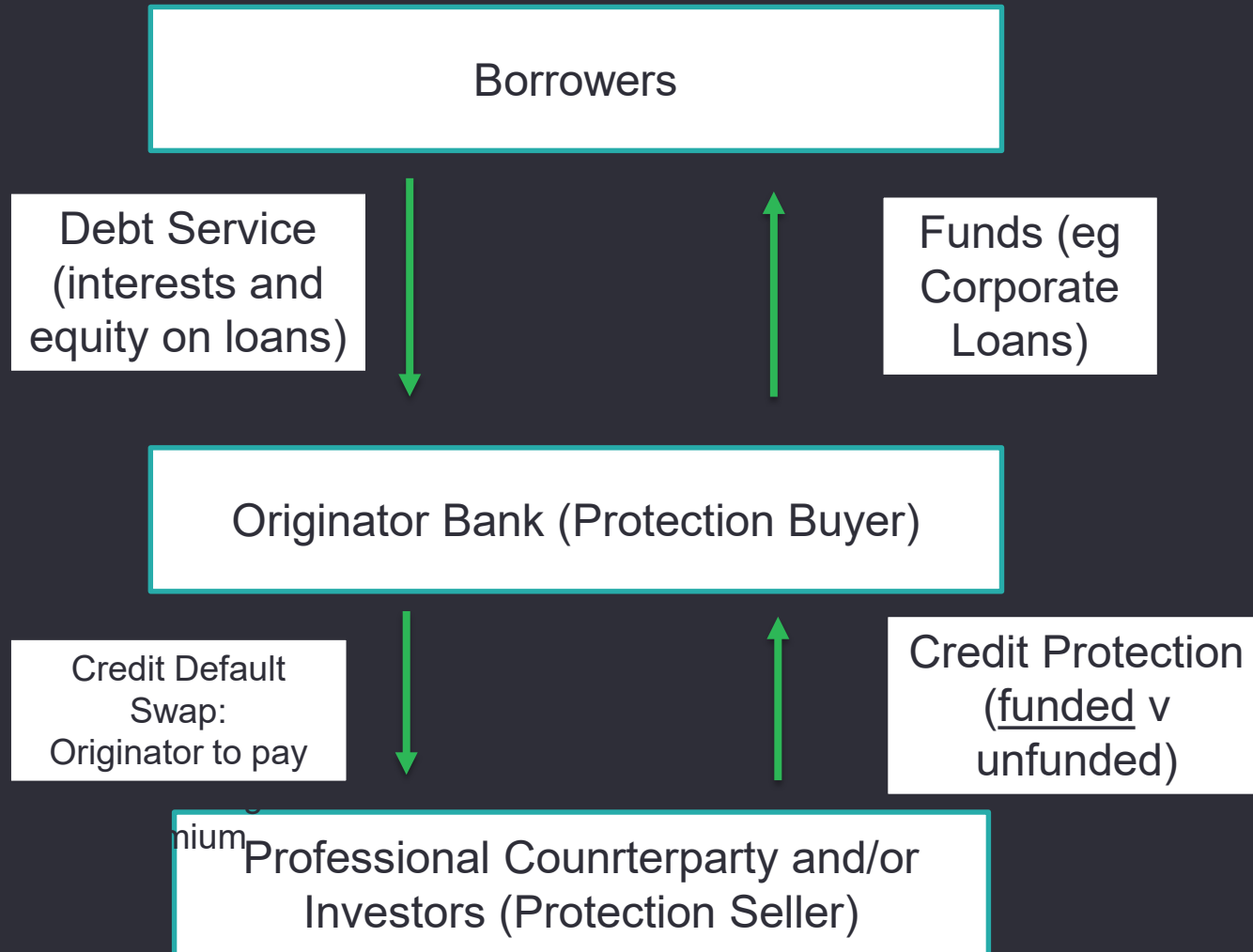


Preferred option if
Cash-flow bearing items can be easily segregated
from production context (eg loans from car
financing entities for acquisition of “Green” vehicles)

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

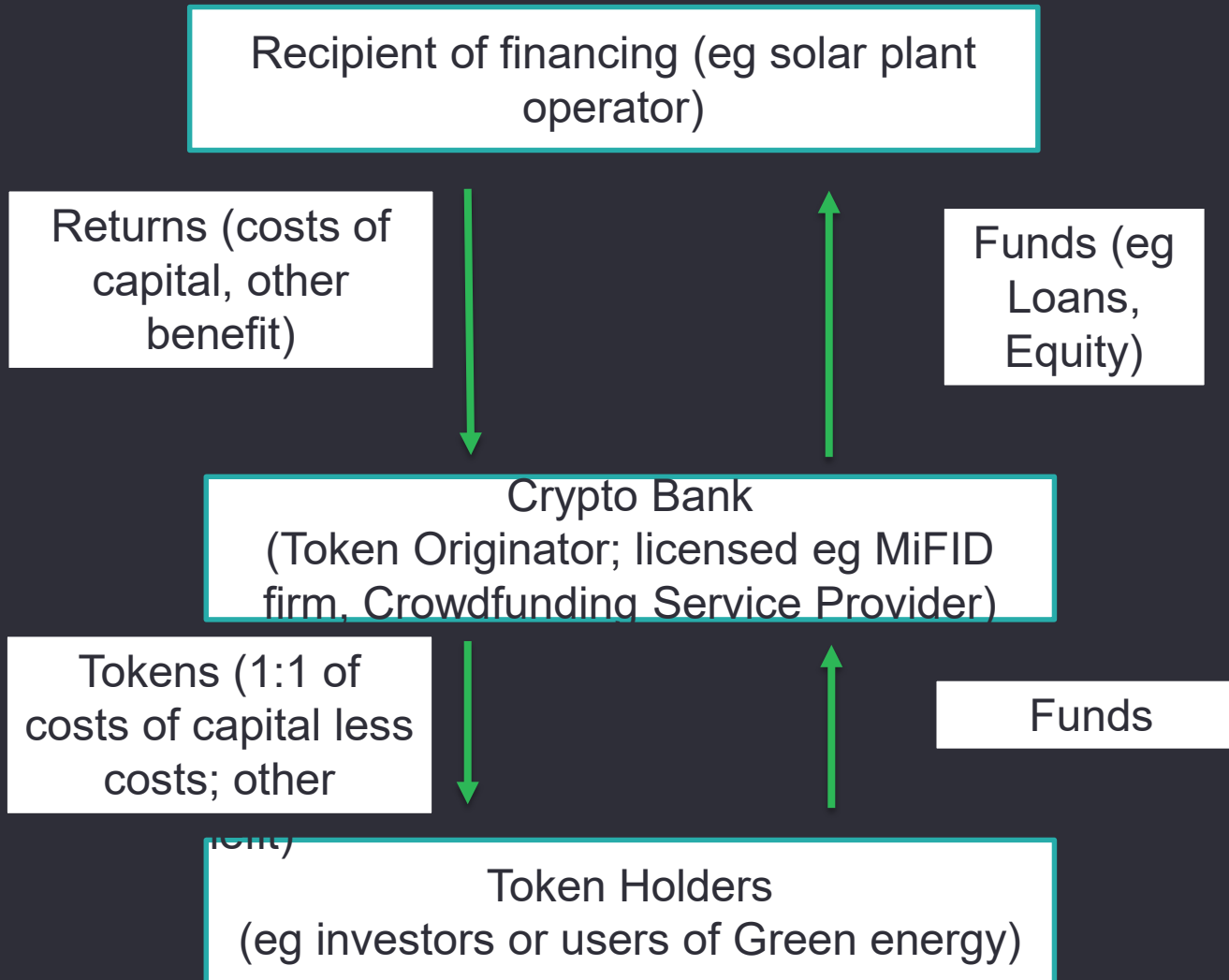
3 Intermediate Results

- 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

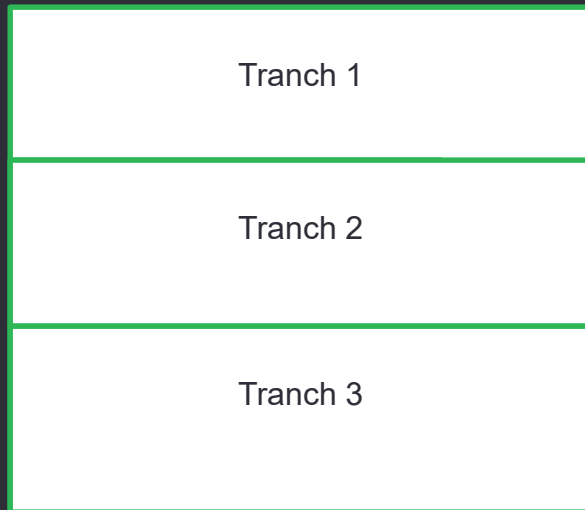
- Securitization and tokenization serve similar economic functions; intermediaries can function as securities OR token initiator; Identification and segregation of assets is a precondition for both securitization and tokenization.
- Token: greater appeal for certain retail investors than „simple debt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

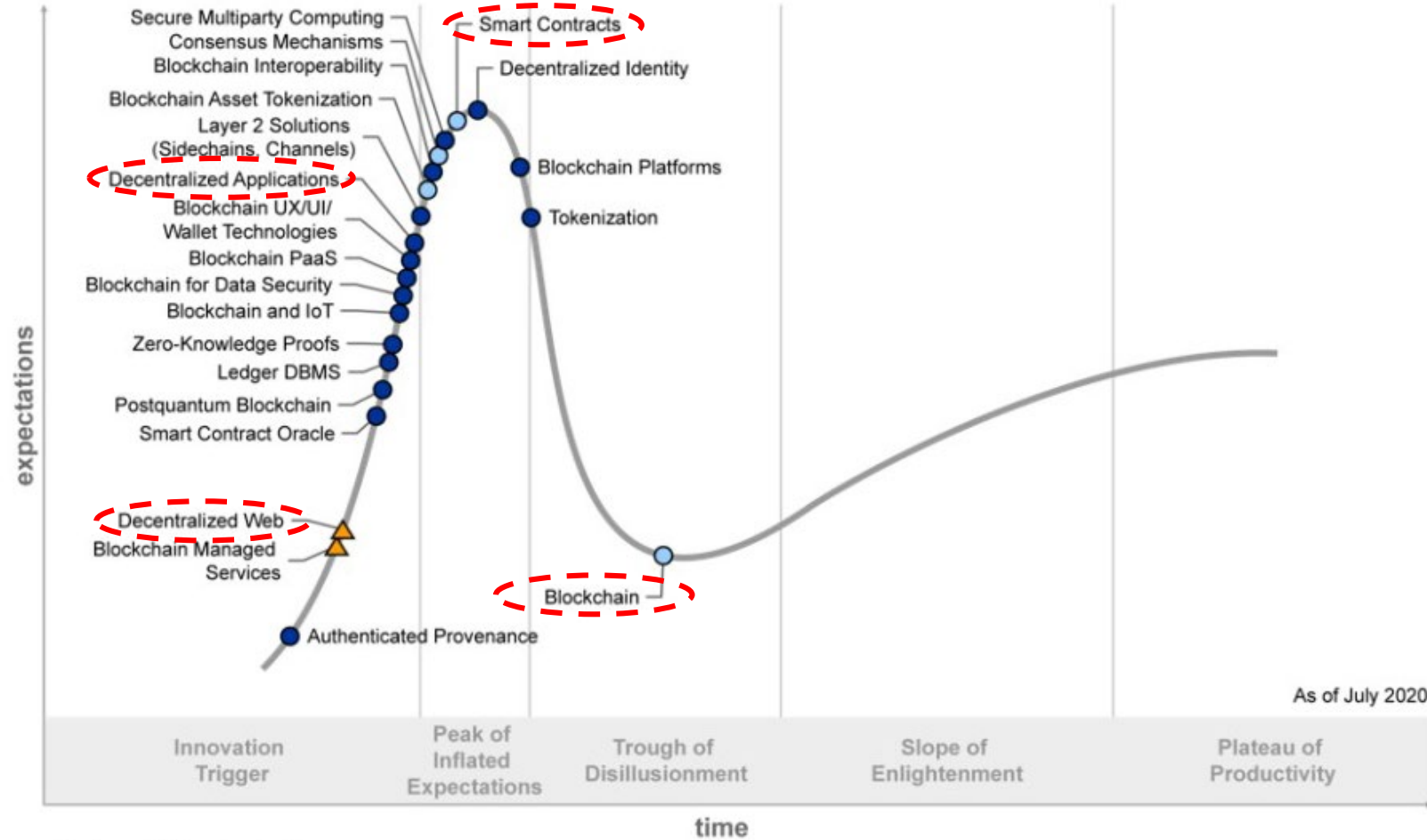


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**BASED ON ANKER-SØRENSEN & ZETZSCHE,
SECURITIZING & TOKENIZING GREEN CASH-FLOWS, WORKING PAPER (2021)**

Hype Cycle for Blockchain Technologies, 2020



As of July 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