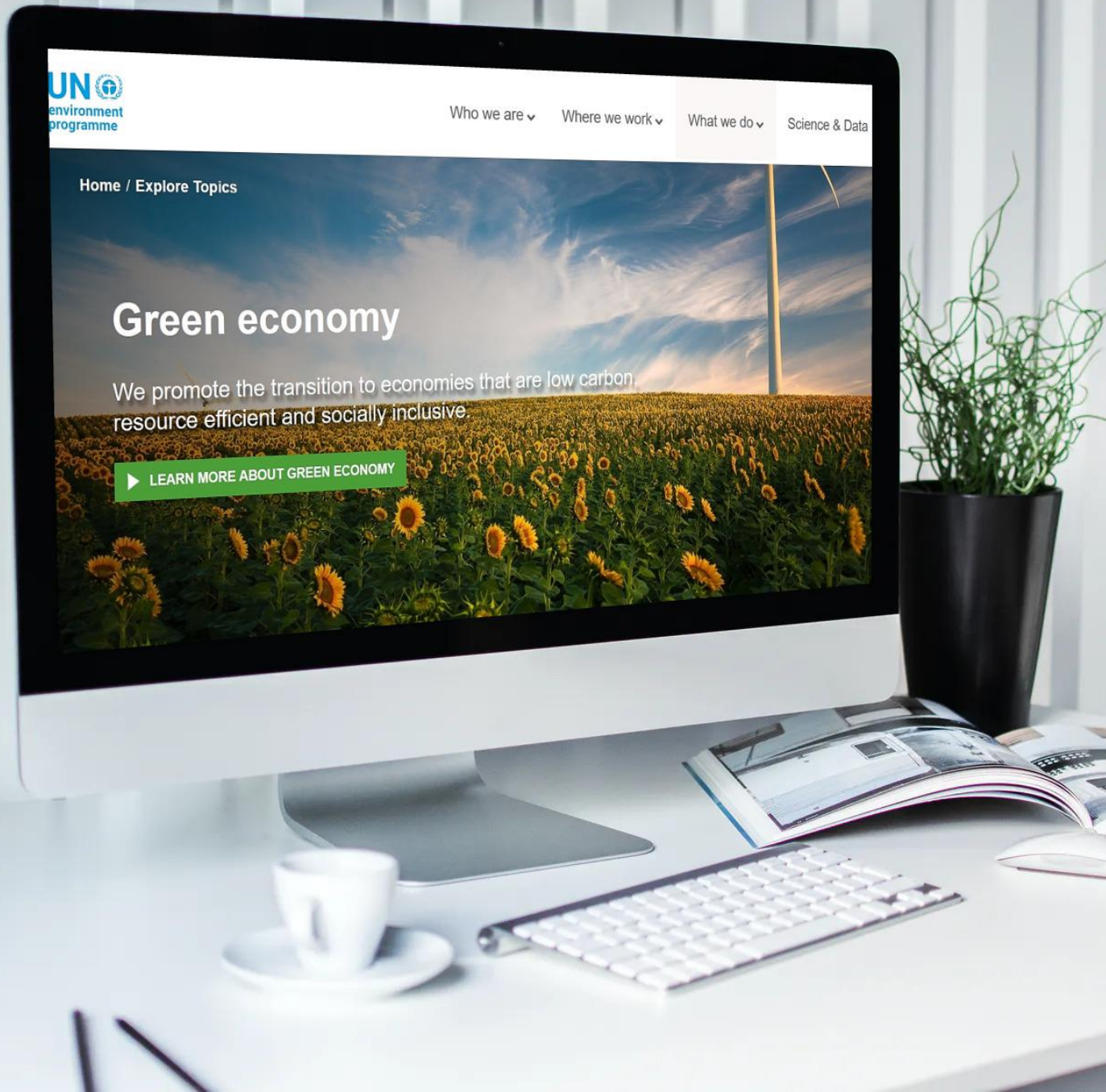




Not for “green”:
risks of inflating a “new-bubble” by applying
traditional financial mechanisms

Vitaly Demidov, MGIMO-University



GREEN ECONOMY:

- ✓ Low carbon
- ✓ Resource efficient
- ✓ Socially inclusive

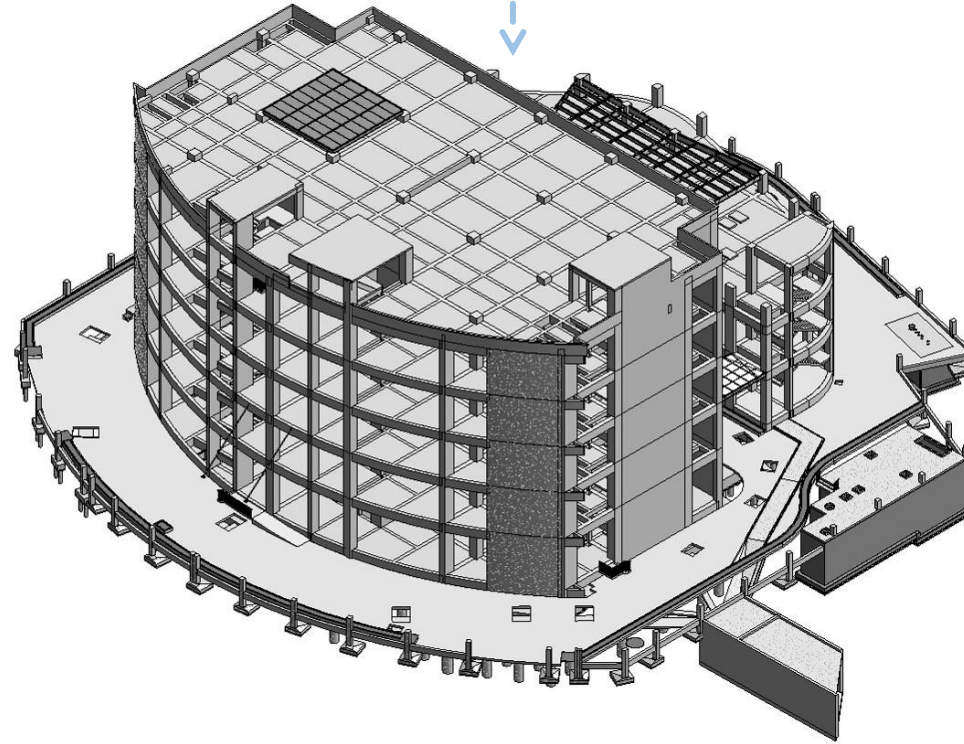
UNEP

Resource efficient

- Materials efficiency
- Energy efficiency
- “Smart” building

Industry 4.0

- Robotics
- Internet of things
- Augmented reality
- Cyber-physical system



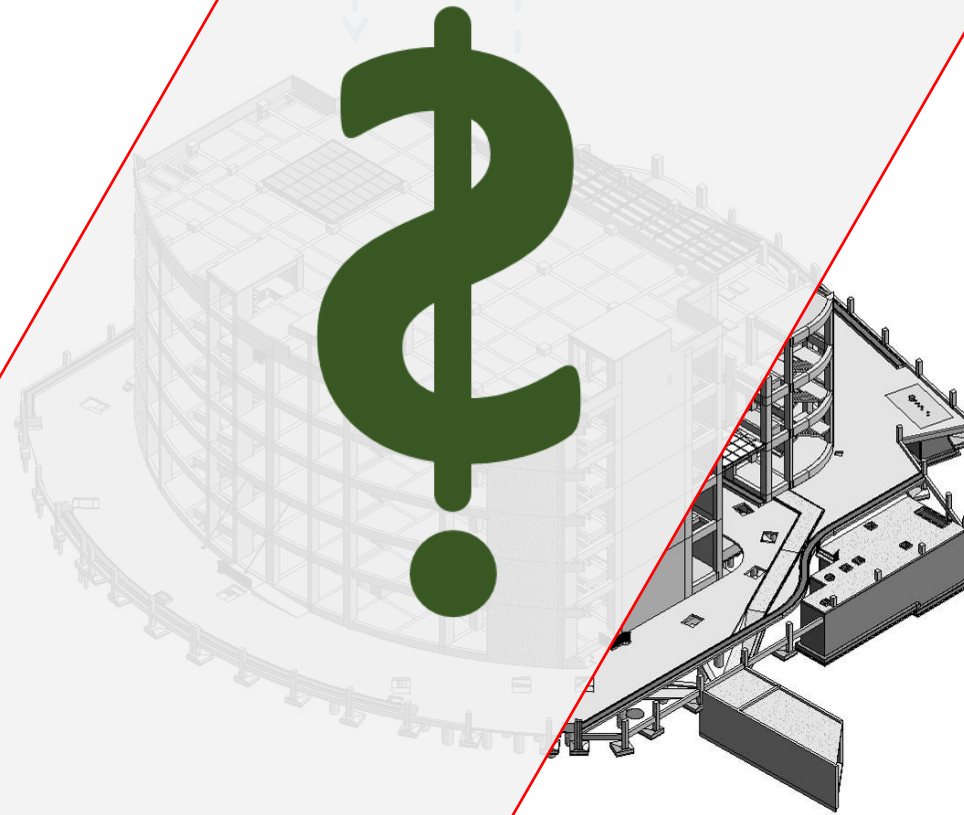
ENGINEERING & CONSTRUCTION

Resource efficient

- Materials efficiency
- Energy efficiency
- “Smart” building

Industry 4.0

- Robotics
- Internet of things
- Augmented reality
- Cyber-physical system

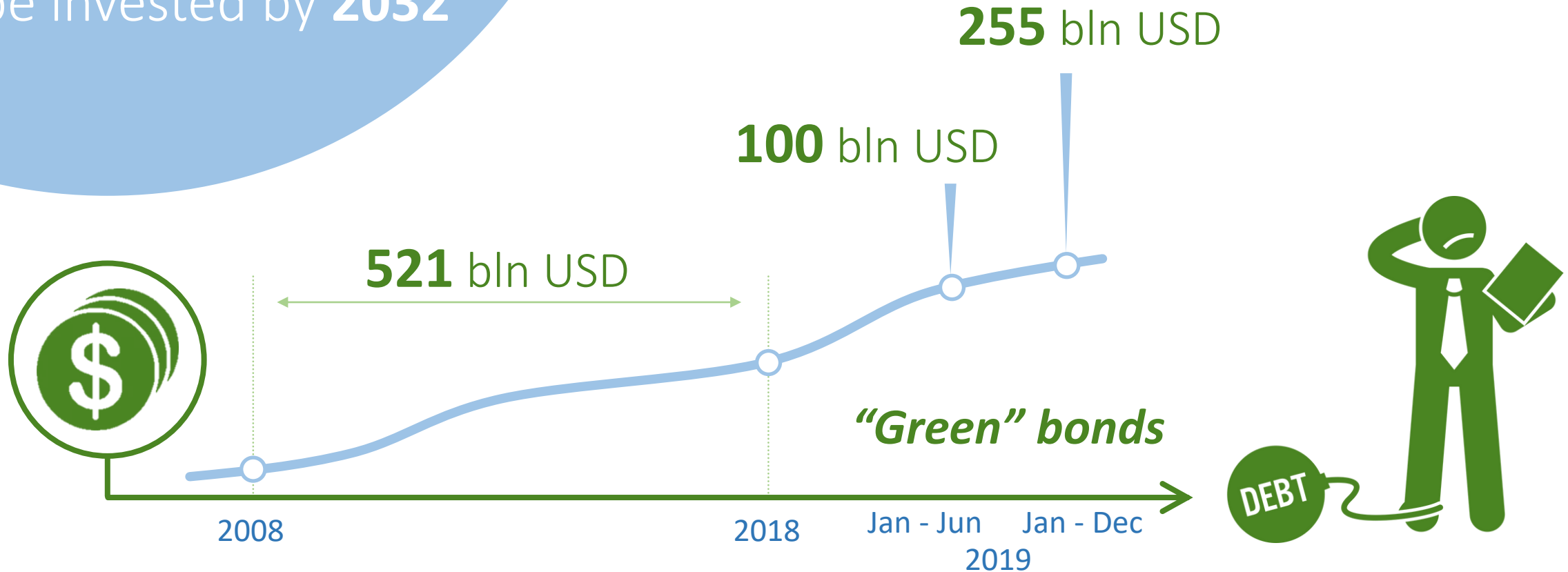


ENGINEERING & CONSTRUCTION

93

tIn USD
to be invested by 2032

Low carbon scenario paid by debt





“Green” mortgages



“Green” home equity loans



“Green” commercial building loans



“Green” car loans



“Green” cards



“Green” project finance



“Green” securitization



“Green” venture capital and private equity



“Green” indices



“Green” fiscal funds



“Green” investment funds



Carbon funds



“Green” insurance



Weather derivatives

Securitization

Mortgages to “green” building

Car loans to electric vehicles and hybrids

Loans to green small-to-medium enterprises

Leases from solar and wind assets

Loans for energy efficiency upgrades

Loans to battery and storage projects

	Hybrid vehicle	Plug-in hybrid vehicle	All-electric vehicle
2015	384.4 ¹ (2,2% ²)	43.0 ¹ (0,3% ²)	71.1 ¹ (0,4% ²)
2016	346.9 ¹ (2,0% ²)	72.9 ¹ (0,4% ²)	86.7 ¹ (0,5% ²)
2017	362.9 ¹ (2,2% ²)	91.1 ¹ (0,5% ²)	104.4 ¹ (0,6% ²)
2018	343.2 ¹ (2,0% ²)	122.8 ¹ (0,7% ²)	238.8 ¹ (1,4% ²)
2019	400.7 ¹ (2,4% ²)	83.8 ¹ (0,5% ²)	242.0 ¹ (1,5% ²)

USA' sales of hybrid, plug-in hybrid, all-electric cars

¹ thousands
² as of all light car sales



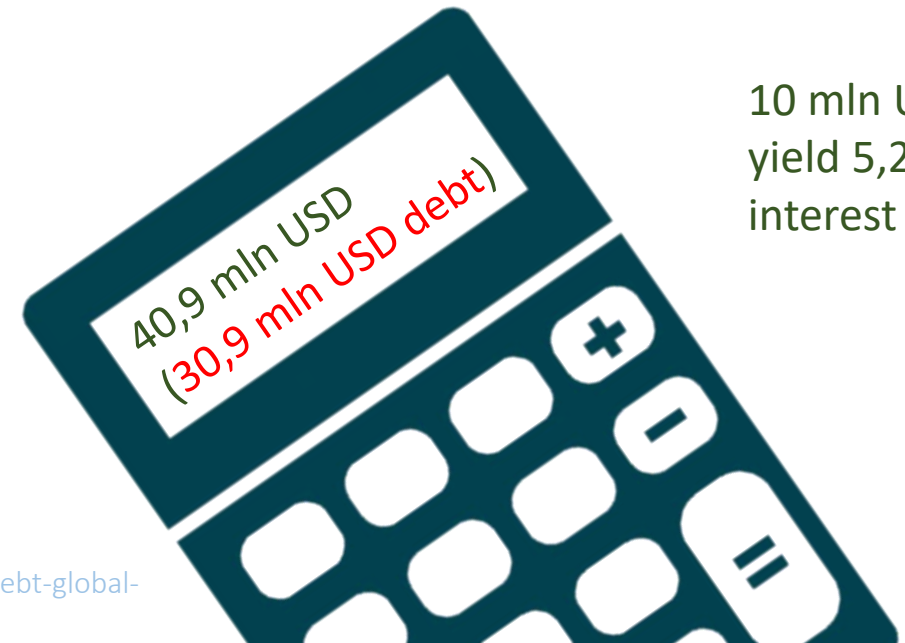
1,17

tIn USD
outstanding car
loan balances

Sell-and-repurchase

1 tln USD
overall sustainable
debt market

10 mln USD
yield 5,25%
interest 2%



*“Green”
bonds*



*Social
bonds*

*Sustainability
bonds*

Derivatives

Industries with weather exposure and the type of risk they face

Hedger	Weather type
Agricultural industry	Temperature/ precipitation
Air companies	Wind
Airports	Frost days
Amusement parks	Temperature/ precipitation
Beverage producers	Temperature
Building material companies	Temperature/ snowfall
Construction companies	Temperature/ snowfall/rainfall
Energy consumers	Temperature
Energy industry	Temperature
Hotels	Temperature/ precipitation
Hydroelectric power generation	Precipitation
Municipal governments	Snowfall
Road salt companies	Snowfall
Ski resorts	Snowfall
Transportation	Wind/snowfall

Risk
Significant crop losses due to extreme temperatures or rainfall
Cancellation of flights during windy days
Higher operational costs
Fewer visitors during cold or rainy days
Lower sales during cool summers
Lower sales during severe winters (construction sites shut down)
Delays in meeting schedules during periods of poor weather
Higher heating/cooling costs during cold winters and hot summers
Lower sales during warm winters or cool summers
Fewer visitors during rainy or cold periods
Lower revenue during periods of drought
Higher snow removal costs during winters with above-average snowfall
Lower revenues during low snowfall winters
Lower revenue during winters with below-average snowfall
Cancellation of ship services due to wind or buses due to blocked roads

Concluding remarks

- 1 Limit-debt finance
- 2 Resilient finance
- 3 Responsible finance
- 4 Socially inclusive finance

