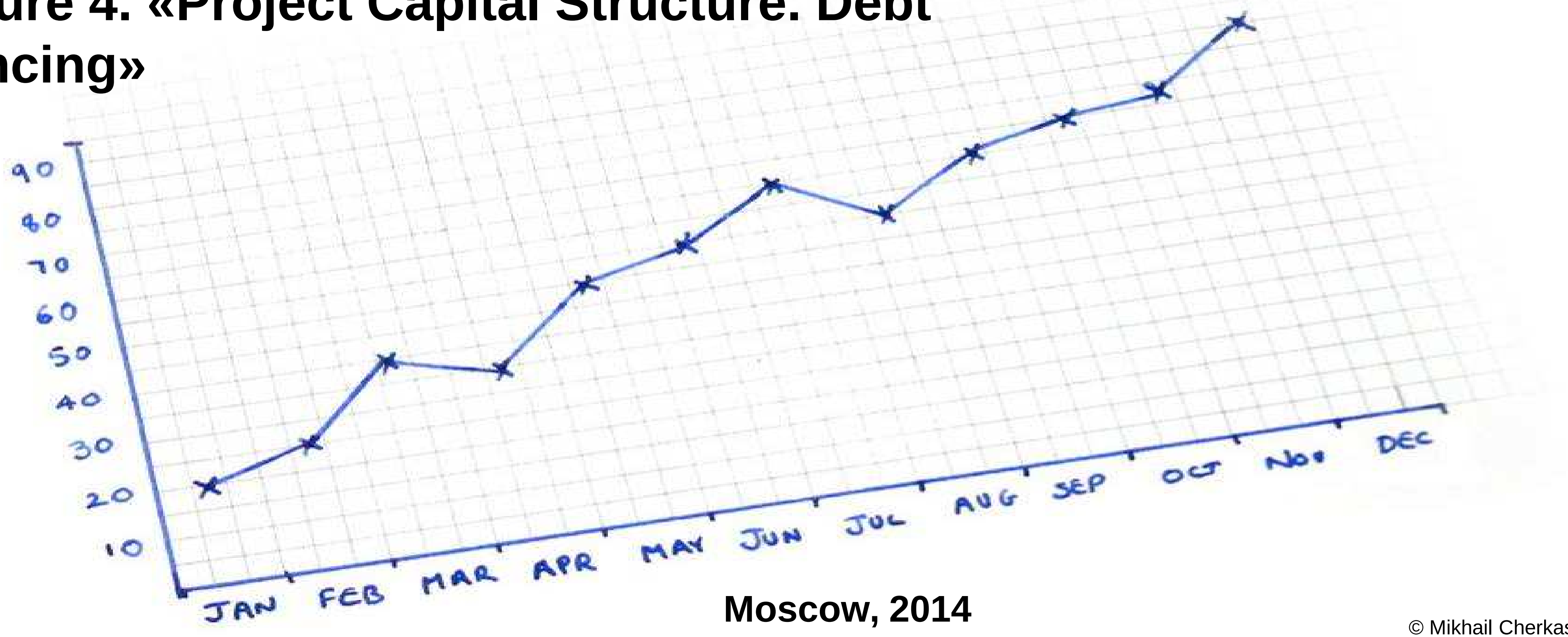
National Research University – Higher School of Economics

Investment Project Management

Lecture 4. «Project Capital Structure. Debt financing»



Moscow, 2014

Equity and Debt Finance. Advantages and Threats

Equity Finance. Strengths	Equity Finance. Weaknesses
- Increase of financial reliability; - Bankruptcy risk decreases; - No credit risk, no interest rate risk.	- Easier (than capital) to raise in the open market; - Tax benefits reduce the cost of financing.

Debt Finance. Strengths	Debt Finance. Weaknesses
- Limited volume; - High cost of equity for the company	- Dangerous financial risks; - Less return on assets created due to borrowed funds (because of charges); - Dependence on financial markets volatility; - The collateral is demanded.

Project Debt Finance

The borrowings for the Project can be given as a:

- **Bank Project finance** without Bank participation in the equity – *Might be given to the existing company without establishing of SPV. Up to 30% of demanded capital have to be granted by the Sponsor.*
- **Bank Project finance** with Bank participation in the equity – *SPV and up to 30% of demanded investments have to be granted by the Sponsor.*
- **Investor debt finance** with further Investor's participation in the equity – *The Options and Warrants are signed at the Efficient date.*
- **Bank Project finance** with Governmental guarantees as a security – *Special procedures with governmental authorities in order to obtain the Guarantees.*
- **Bonds issue** as a public debt instrument of Project finance – *Bonds issuing is a complicated public procedure but less complicated as Bank project finance.*
- **Syndicated loan**, **CLN** (Credit-linked Notes), **LPN** (Loan-Participation Notes) as a quasi-public borrowings – *Less complicated procedure of lending in the open market.*

Project Debt Finance

The borrowings for the Project can be given as a:

- **Lease financing** of equipment or even real estate – *Gives good opportunities in tax savings and less strict procedure.*
- **Existing shareholders loan** – *Rare case.*
- **Reward Crowdfunding** through the placement of future goods/services produced by the Project – *The investors buy company's future output at grace price.*

Project Debt Finance

- **Full recourse financing** (to Sponsor):

Is used, as a rule, for high risk projects finance. In this case the Sponsor accepts all risks linked to the Project implementing.

- **Non-recourse financing** (to Sponsor):

Is used, as a rule, for high yield projects finance. In this case the Lender accepts all risks linked to the Project implementing.

- **Limited recourse financing** (to Sponsor):

The most used form when all the participants distribute the risks generated by the Project between themselves.

As a matter of fact any Project provides the direct participation of the Lender in the Equity or Options and Warrants in favour of Lender in case of successive Project completing.

The mandatory component of Project finance agreement – is a description of **Step in** procedure, which stipulates that in adverse conditions the Lender (or its Trustee) enters the process of Project management as an active participant.

Accompanying agreements:

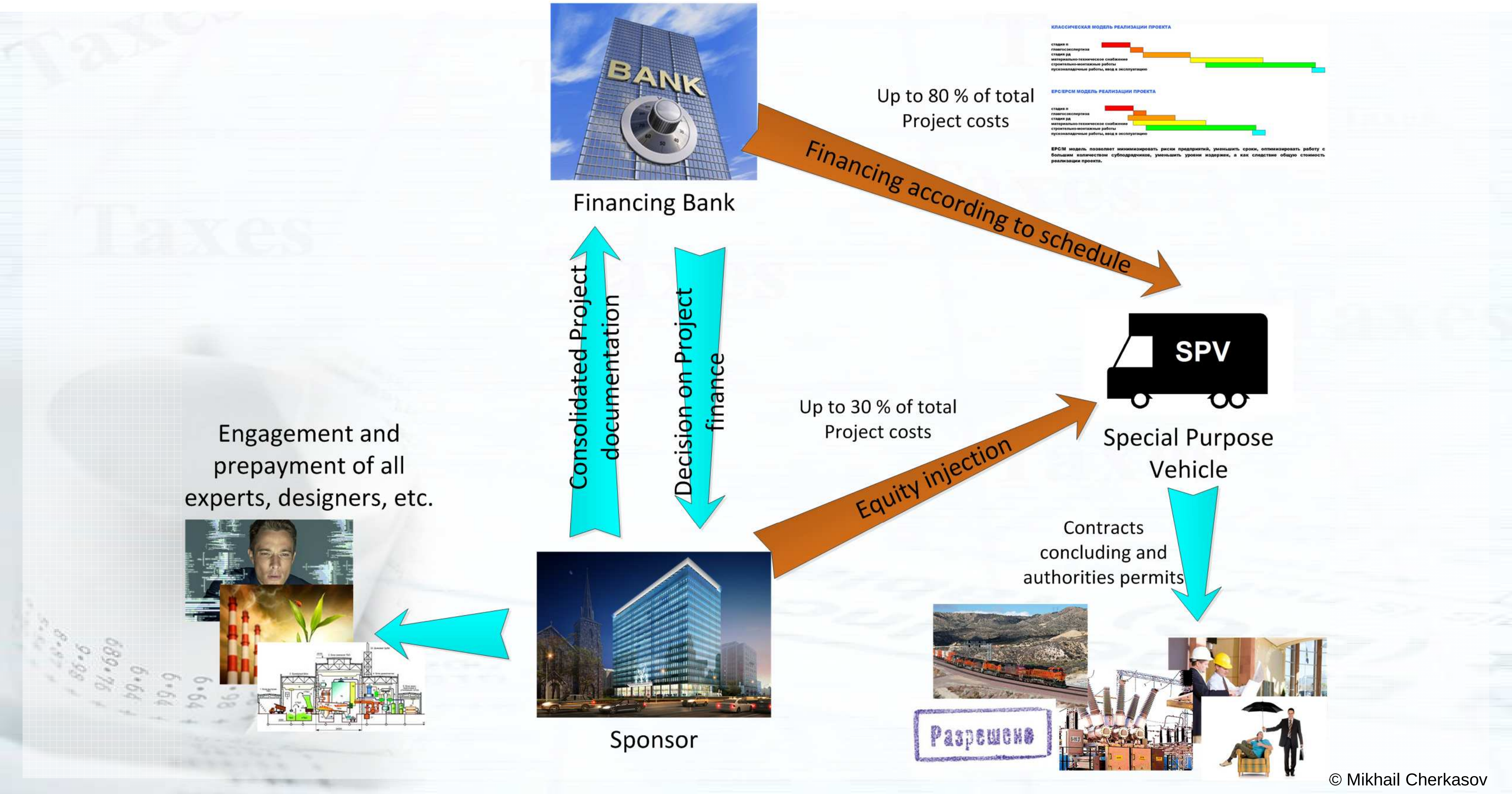
Three-partite agreement: Investor, Sponsor, SPV (Borrower) describes all relations and allocation of risks between parties. As well, it establishes the schedule, operational and financial covenants to the Borrower and Sponsor.

Stand-still agreement: the Parties do not commit any hostile actions in case of non-substantial breach of the covenants.

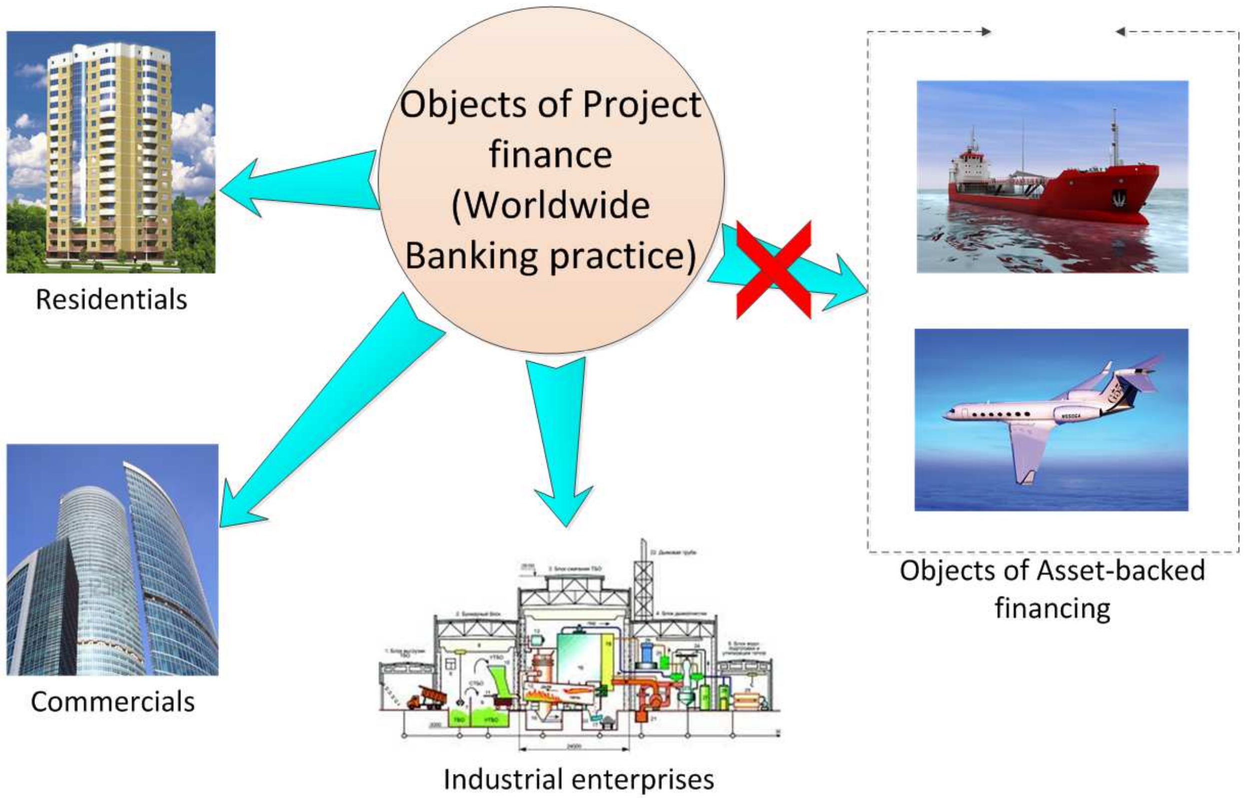
Project Debt Finance

Escrow-account – is a form of the deal on acquisition of the property or Project finance. The Escrow account opened by the Bank-agent accumulates **Sponsor's funds** invested to the financed Project, **equity formation** or any other agreed inflows. Unblocking of the Escrow account is being done against producing requested documents (Bank-lender confirmation or Release, statutory documents of registered company, authorities allowances for asset alienation, Bank waiver in case of project refuse, etc.)

Project Debt Finance



Project Debt Finance



Project Lease Financing

Lease financing of the Project is one of the most conventional forms of equipment acquisition and some other assets purchasing. The Lease is an long-term rent agreement between Lessee (user) and Lessor (owner) related to tangible assets.

The lease payments are calculated with using quite complicated formula:

$$\begin{aligned}&\mathit{Total\ Lease\ Value}\\&= \mathit{Depreciation\ Expense} + \mathit{Borrowing\ Costs} + \mathit{Lessor's\ premium}\\&+ \mathit{VAT\ (for\ respective\ period)}\end{aligned}$$

Accounting Lease "**Rise in price**" («удорожание») is calculated as:

$$\mathit{Lease\ Return} = \frac{\left(\dfrac{\mathit{Total\ Lease\ Value} - \mathit{Acquisition\ Price}}{\mathit{Acquisition\ Price}}\right)}{\mathit{Number\ of\ years}}$$

Project Debt Finance

Roughly you can quickly calculate the effective interest rate if the "Return rate" is given using the formulas:

For monthly/quarterly lease payments:

$$\textit{Effective lease interest rate} = 1{,}65 \times \frac{\textit{Return rate}}{\textit{Share of lease in the acquisition amount}}$$

For annual lease payments:

$$\textit{Effective lease interest rate} = 1{,}45 \times \frac{\textit{Return rate}}{\textit{Share of lease in the acquisition amount}}$$

Acquisition amount, VAT incl., RUR.:			5 711 781,90
№ п/п	Дата платежа	Сумма платежа	
1	20.03.2014	1 347 622,54	
4	21.06.2014	161 730,80	
5	21.07.2014	161 730,80	
6	21.08.2014	161 730,80	
...			
33	21.11.2016	161 730,80	
34	21.12.2016	161 730,80	
35	21.01.2017	161 730,80	
36	21.02.2017	161 730,80	
37	21.03.2017	161 730,80	
Total		**6 846 469,74**	
Return Rate	19,87%	For 3 years	
Return Rate	6,62%	For 1 year	
Effective interest rate wih monthly payments	13,66%	=Return rate*1,65/0,8 (share of lease in the acquisition amount)	
Effective interest rate wih annual payments	12,00%	=Return rate*1,45/0,8 (share of lease in the acquisition amount)	