Finance and Growth:
the Role of Multilateral Development Banks and the European Investment Bank (EIB)

MEF Tor Vergata

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Outline

1. **Finance and Growth: the Process of Development**
   Schumpeter, entrepreneurship and economic growth
2. **Public Sector Banks and Financial Market Development**
   To overcome market failure at the national level
3. **IFIs (International Financial Institutions) and Multilateral Development Bank**
   To overcome market failure at the international level
4. **European Investment Bank**
   MDBs and EIB
5. **Project Cycle**
   Analysis of Projects
6. **EIB and the Crisis**
   Critical Role

1. Finance and Growth: the Process of Development

– Schumpeter, entrepreneurship and economic growth

According to Schumpeter (1934), the entrepreneur is the innovator who implements change by initiating new combinations, which can take several forms:

(1) the introduction of a new good or quality thereof,
(2) the introduction of a new method of production,
(3) the opening of a new market,
(4) the conquest of a new source of supply of new materials or parts, or
(5) carrying out the new organization of any industry.

– Role of Financial Markets:

- Allocation of credit according to efficiency criteria, rewarding the "creative destruction" of the Schumpeterian entrepreneur, and therefore creating opportunities to finance growth.

1. Finance and Growth: the Process of Development

Financial Market Development

SMEs

Micro-Enterprises

Infrastructure

Income Generating Activities (IGA)

Growth Generating Activities (GGA)

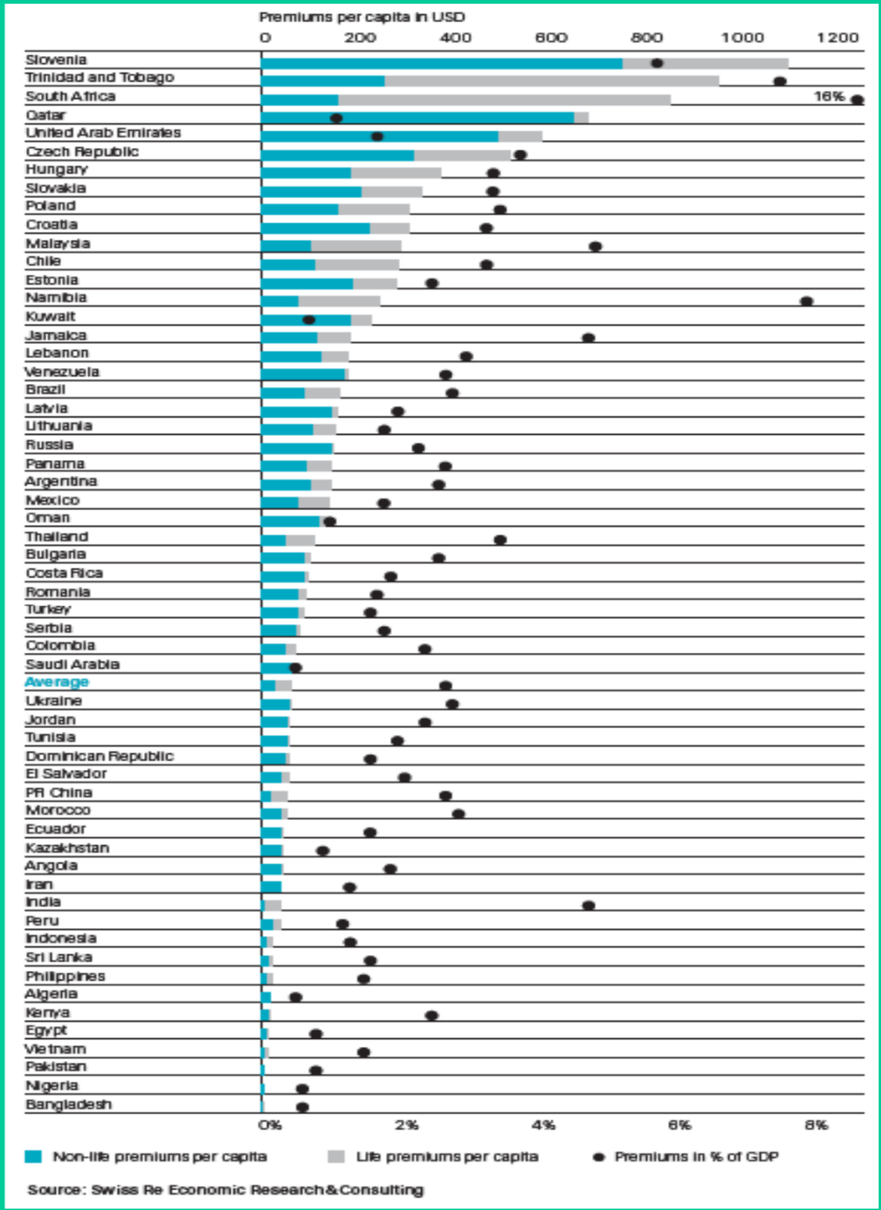
1. Finance and Growth: the Role of Financial Sector

- Bank Credit/GDP as an indicator of financial sector development

Geographic Area	M_2/GDP(%)	Private Loans/GDP (%)
Latin America	0,354	0,251
Advanced Economies	1,11	0,86
Selected Emerging Markets	0,89	0,9

1. Finance and Growth: Financial Sector and Insurance Markets in Emerging Countries

Although insurance products are progressively spreading in emerging countries, there is still much room for improvement.



1. Finance and Growth: Financial Sector and Insurance Markets in Emerging Countries

- Insurance significantly reduces transaction costs and facilitates financing by diminishing borrowers' exposure to risks.

- Insurance as a new financial product improves the stability and profitability of finance institutions.

1. Finance and Growth: Entrepreneurship

- Micro and SMEs account for 90-99% of GDP in many countries
- Promoting firms means fostering economic growth
- Infrastructure supports economic growth

1. Finance and Growth: Entrepreneurship - GEM Data vs WBGES Data

- Empirical work based on GEM (*Global Entrepreneurship Monitor*) and WBGES (*World Bank Group Entrepreneurship Survey*) produce interesting results.

- Different data sets,

  – WBGES measures are based on registred companies, entrepreneurship in broader sense,

  – GEM capture "*propensity to entreprenrusship*" in the various countries (e.g. pecentage of population that is self -employed).

1. Finance and Growth: Entrepreneurship
- GEM Data vs WBGES Data

- GEM: informal economy, WBGES official economy

- GEM data are higher in emerging countries (e.g., role of informal economy)

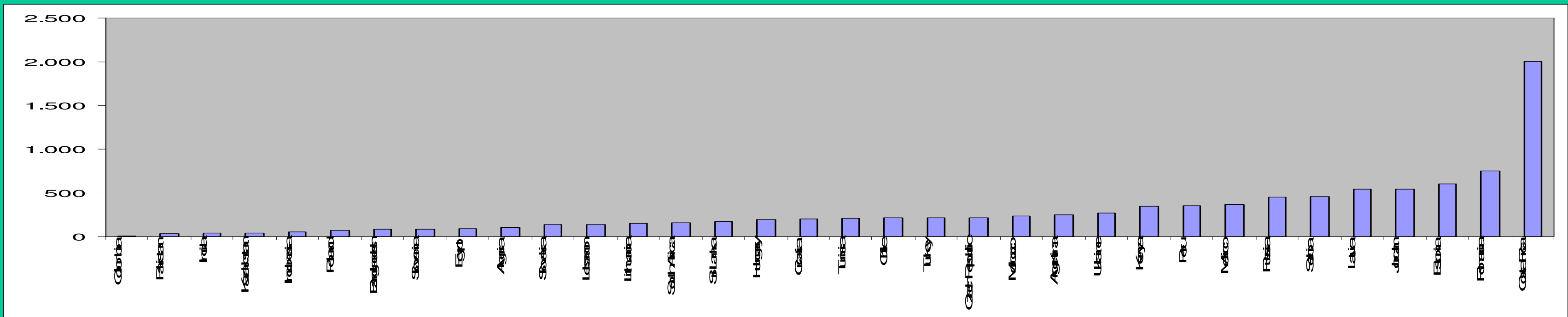
- Less administrative and other obstacles to start a business in developed economies

- Less problems of access to finance.

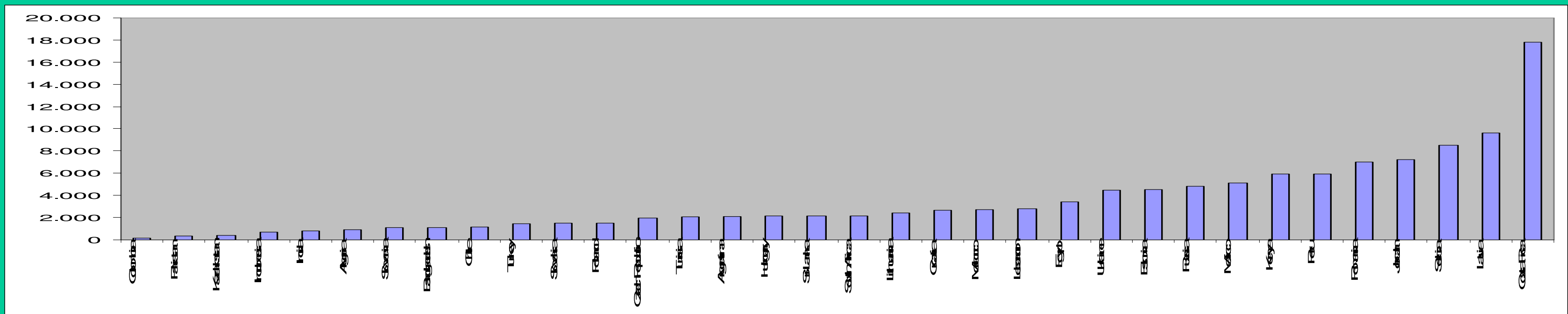
1. Finance and Growth: Entrepreneurship

Propensity to Entrepreneurship

New Corporations over GDP



Total Corporations over GDP



Source: WB Data

1. Finance and Growth: Entrepreneurship -Principali paesi del Mediterraneo

Country	Year	New Corporations	Crescita %
Algeria	2002	13.770	-
	2003	10.123	-26,49
	2004	12.494	23,42
	2005	12.164	-2,64
Egypt	2002	.	-
	2003	.	-
	2004	.	-
	2005	9.595	-
Jordan	2002	4.792	-
	2003	5.080	6,01
	2004	6.532	28,58
	2005	7.706	17,97
Lebanon	2002	2.853	-
	2003	2.891	1,33
	2004	3.470	20,03
	2005	3.127	-9,88
Morocco	2002	9.362	-
	2003	10.788	15,23
	2004	11.810	9,47
	2005	13.407	13,52
Tunisia	2002	5.460	-
	2003	5.332	-2,34
	2004	5.883	10,33
	2005	6.353	7,99

Data Base World Bank

2. Responses: Public Sector Banks, Financial Market Development, Entrepreneurship

- Within government intervention in the economy and as part of the financial repression, the role of public sector banks constitutes an important instrument to overcome supposed market failures (lack of private sector intermediation, low savings, lack of foreign exchange) and to finance long term investments

- Most of the literature on state ownership of banks focuses on development banks – at national and international levels (e.g., MDBs)- and their impact on financial development and economic growth. However, there are very different types of state owned and public sector financial institutions.

- Research and experience have shown that development banks tend to have low profitability, return on assets lower than that of private banks, inefficiency, corruption.

- Role in economic and financial crises

- Open Debate

- Developing local financial markets based on local currency

2. Responses:
Public Sector Banks, Financial Market Development, Entrepreneurship

- Market failures
  - Foreign exchange, foreign savings are much less important
  - Is financial intermediation a market function
  - The critical needs are:
    - » Incentives to be an entrepreneur
    - » Technology, Innovation, Strategy on the side of SMEs and micro enterprises
    - » Financial Sector Development to reduce asymmetries is fundamental on the institutional side

    Local currency

2. Responses:
Public Sector Banks, Financial Market Development, Entrepreneurship

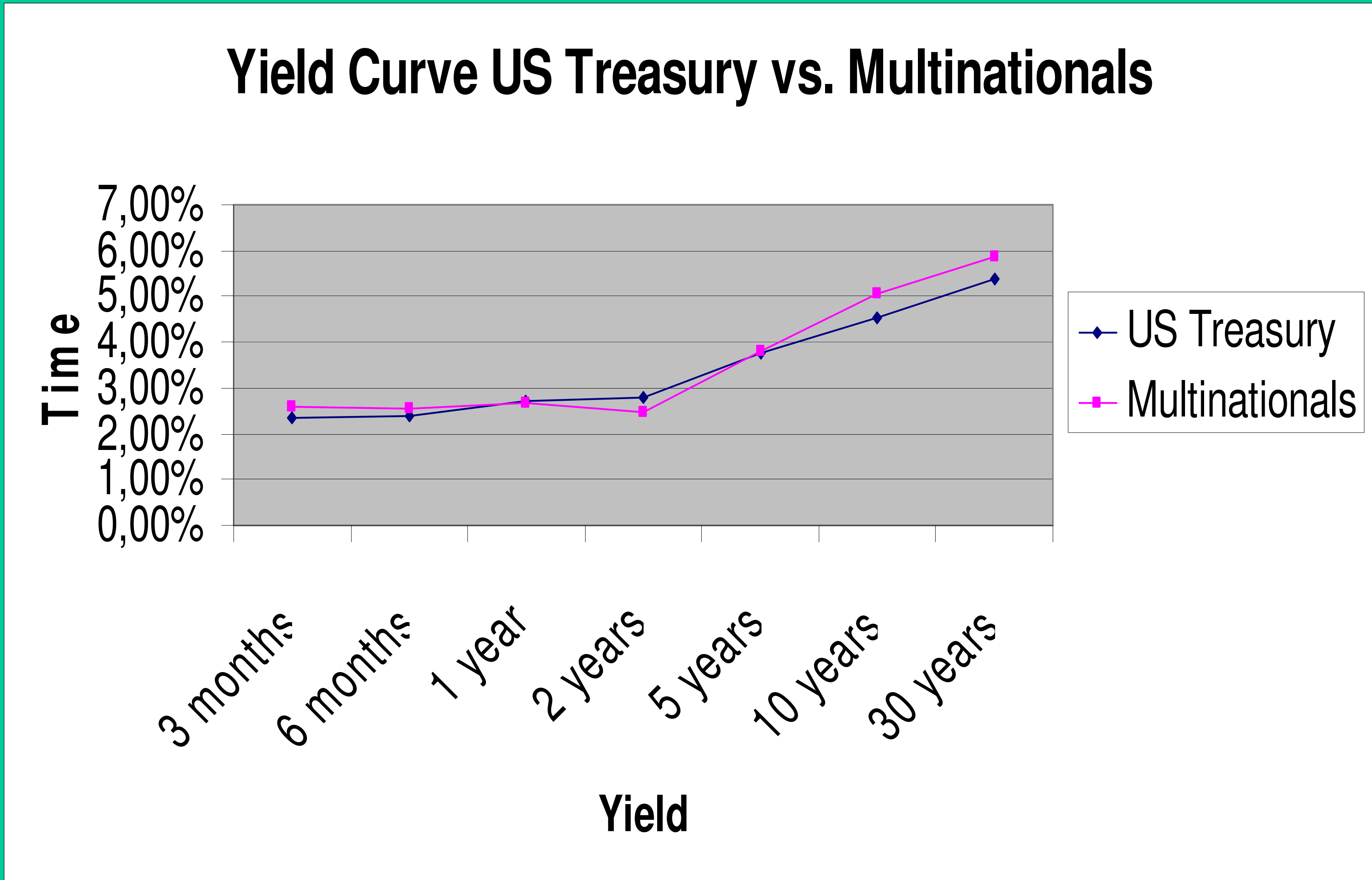
- Three main principles:
  - Additionality /Value Added
  - Ownership
  - Market Oriented and Market Driven

3. IFIs (International Financial Institutions) and Multilateral Development Bank

- The "Multinational's" AAA : The strong AAA is mainly a result of:
  - **1. Strong Membership Support**
  - **2. Sound Financial Policies (e.g., liquidity)**
  - **3. Good Financial Performance**
  - **4. Preferred Creditor Status**
  - **5. Ratio loans outstanding/capital (gearing ratio)**
  - **6. Borrowers are also shareholders**

  National MDBs (e.g., BNDES)

Il Rating AAA delle IFIs



3. IFIs (International Financial Institutions) and Multilateral Development Bank

- International financial institutions, or IFIs, refers to financial instituions that have been established (or chartered) by more than one country, and hence are subjects of international law. Their owners or shareholders are generally national governments, although other and other organisations occasionally figure as shareholders. The most prominent IFIs are creations of multiple nations, although some bilateral financial institutions (created by two countries) exist and are technically IFIs.

- Multilateral Development Banks are banks that have a developmental mandate and in which the Member States are shareholders and over which they exert a certain degree of influence in proportion to their stake. IFIs have a Governing Council (Member States' s Finance Ministry) and a Board comprising executive directors responsible for their daily management and representing a set group of countries (referred to as a constituency). IFIs can be divided into three categories: the so-called Bretton Woods institutions, regional development banks and the financial institutions of the European Union.

3. IFIs (International Financial Institutions) and Multilateral Development Bank: Types of IFIs

- Bretton Woods institutions
  - The best-known IFIs were established after World War II to assist in the reconstruction of Europe and provide mechanisms for international cooperation in managing the Global finacial system They include the World Bank, the IMF, the International Financial Corporation, and other members of the World Bank Group (e.g., MIGA).

- Regional development banks
  - The regional development banks consist of several regional institutions that have functions similar to the World Bank group's activities, but with particular focus on a specific region. Shareholders usually consist of the regional countries plus the major donor countries. The best-known of these regional banks cover regions that roughly correspond to United Nations regional groupings, including the Inter-American Development Bank (i.e., it works in the Americas, but primarily for development in Latin America and the Caribbean); the Asian Development Bank; the African Development Bank; and the European Bank for Reconstruction and Development.

- Bilateral development banks
  - Bilateral development banks are financial institutions set up by individual contries to finance development projects in developing countries and emerging markets. Examples include the Netherlands Development Finance Corporation (FMO) and the German Development Bank KfW.

- Other regional financial institutions
  - Several regional groupings of countries have established international financial institutions to finance various projects or activities in areas of mutual interest. The largest and most important of these is the European Investment Bank, an institution established by the members of the European Union. Other examples include the International Investment Bank (established by the countries of the former Soviet Union and Eastern Europe), the Islamic Development Bank and the Nordic Investment Bank.

4. The European Investment Bank

–European Investment Bank (EIB) was created by the Treaty of Rome in 1958 as the long-term lending bank of the European Union

–The task of the Bank is to contribute towards the integration, balanced development and economic and social cohesion of the EU Member States. The EIB also operates outside the EU.

–The EIB raises substantial volumes of funds on the capital markets, which it lends on favourable terms to projects furthering EU policy objectives. The EIB continuously adapts its activity to developments in EU policies

–The EIB is one of the largest non-sovereign borrowers on the EU bond market.

–The EIB enjoys its own legal personality and financial autonomy within the EU; it operates in keeping with strict banking practice and in close collaboration with the wider banking community, both when borrowing on the capital markets and when financing capital projects

–In 2007, the European Investment Bank lent a total of EUR 47.8 billion for projects promoting the European Union's policy objectives. Finance for the EU-27 Member States represented 87% of its activities and amounted to EUR 41.4 billion.

4. The European Investment Bank

- **Within the EU** the EIB has 6 priority objectives for its **lending activity** which are set out in the Bank's business plan, the Corporate Operational Plan(COP):

  - Cohesion and Convergence
  - Support to SMEs
  - Environmental Sustainability
  - Implementation of the Innovation 2010 Initiative (i2i)
  - Development of Trans European Network of Transport and Energy (TENs)
  - Sustainable, Competitive and Secure Energy Markets

4. The European Investment Bank

- **Outside the EU** EIB lending is based on EU external cooperation and development policies.

  EU Mandates are:

  - Pre-Accession:Candidate and Potential Candidate countries in the Enlargement Region
    - European Neighbourhood
    - Mediterranean Neighbourhood
    - Russia and Easter Neighbours
  - Development:
    - Africa, Pacific and Carabbean (ACP)
    - Republic of South Africa
  - Economic Cooperation:
    Asia and Latin America (ALA)

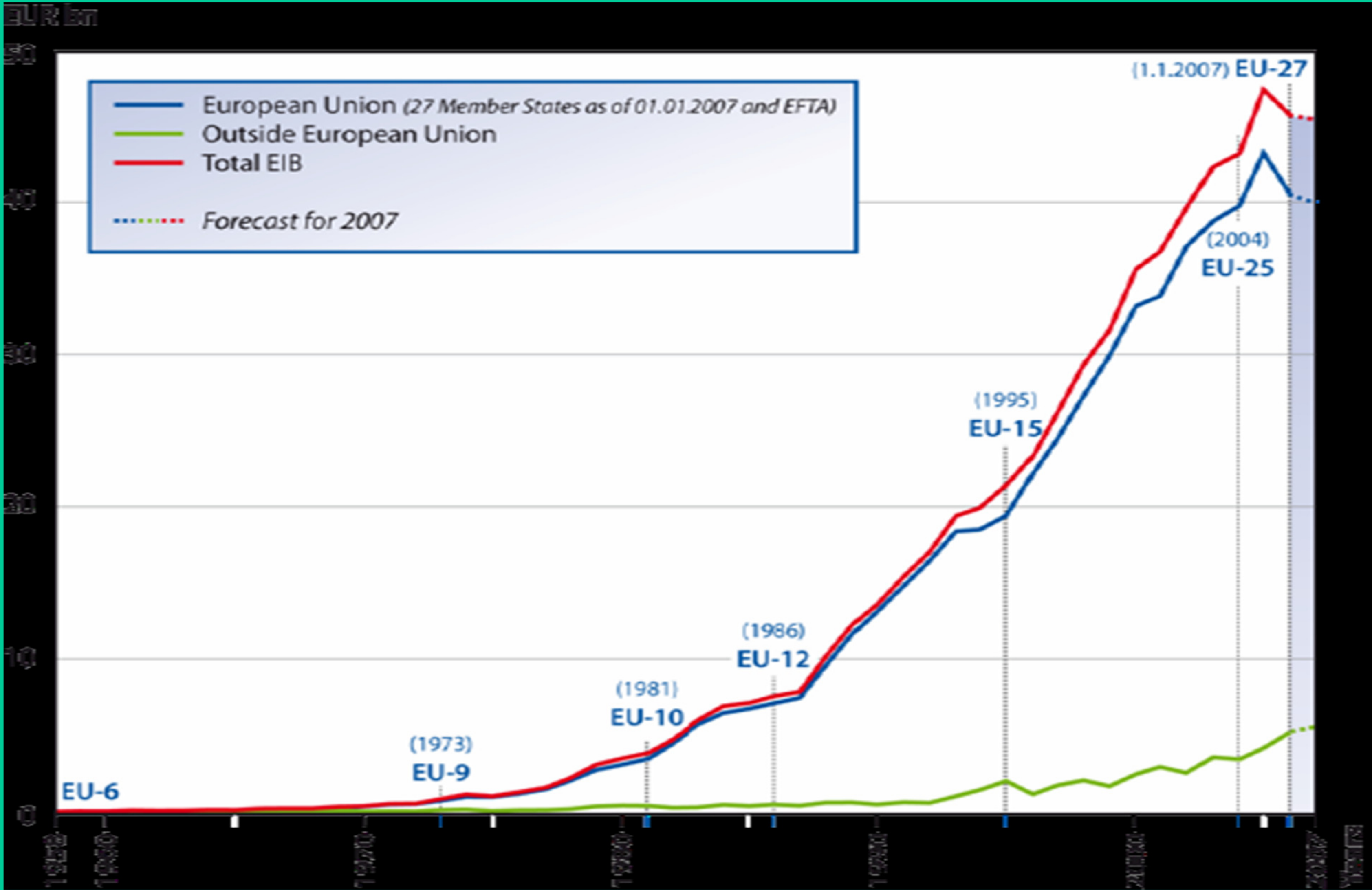
- Lending under these mandates focuses on:
  - Private sector development
  - Infrastructure development
  - Security of energy supply
  - Environmental sustainability

4. The European Investment Bank

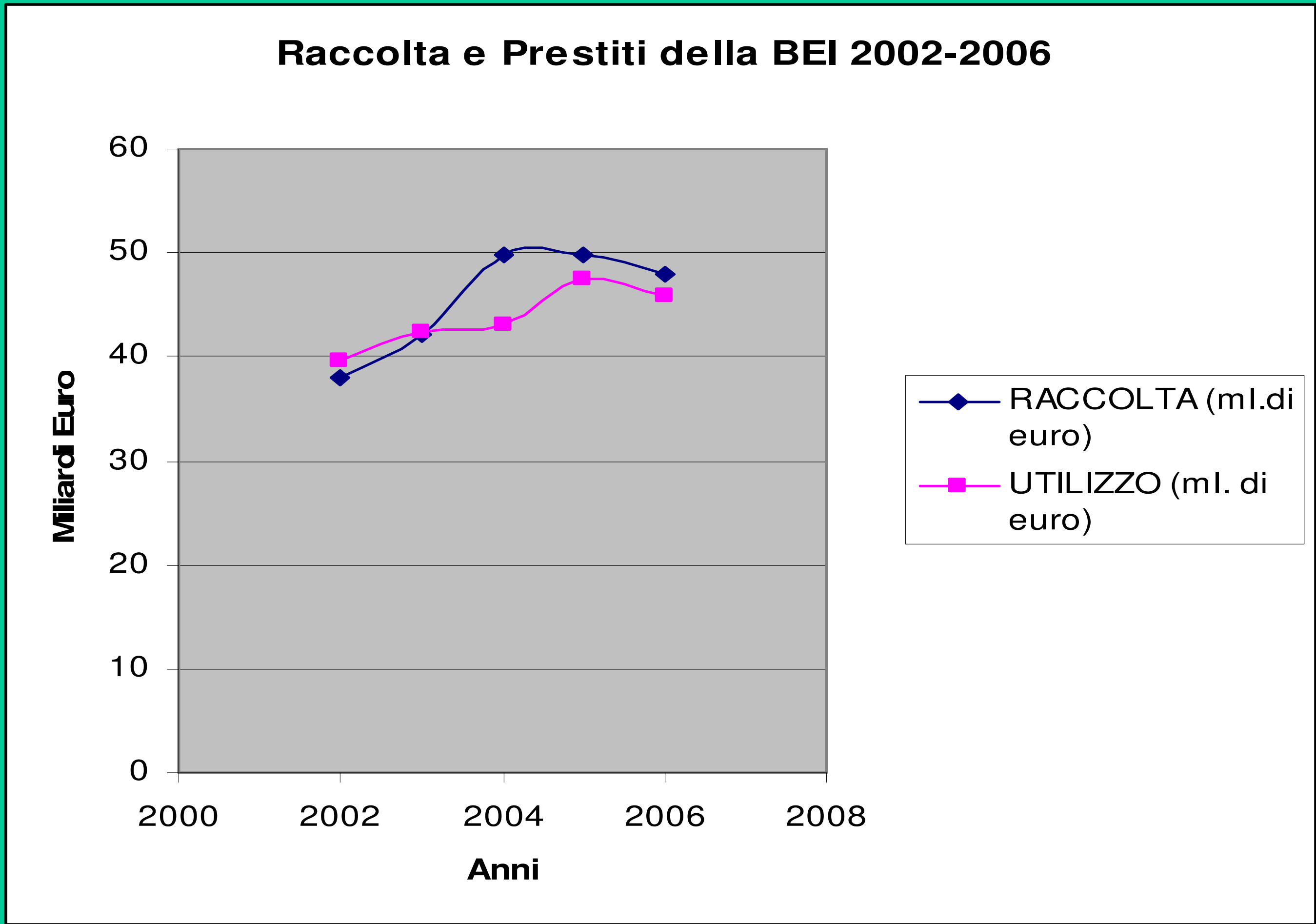
Activity in 2006 (millions Euro)

- **Signatures 45 761**
  - European Union 39 850
  - Partner Countries 5 911
- **Projects approved 53 371**
  - European Union 45 559
  - Partner Countries 7 811
- **Disbursements 36 802**
  - From the Bank's resources 36 535
  - From budgetary resources 267
- **Resources raised (before swaps) 48 050**
  - Community currencies 26 535
  - Non-Community currencies 21 515
- **Outstanding : Situation as of 31.12.2006**
  - Loans from the Bank's resources 310 911
  - Guarantees provided68Financing from budgetary resources 1982
  - Short, medium and long-term borrowings 246 576
- **Own funds 31 172**
- **Profit for year 2 566**
- **Subscribed capital 163 654**
  - of which paid in and to be paid in 8183

Prestiti BEI



Prestiti e Raccolta (before swaps)



4. The European Investment Bank

a. Loans

- **Clients**
  - EIB clients are public and private sector entities and enterprises. The project promoted by the public or private client must be in line with the lending objectives of the EIB and be economically, financially, technically and environmentally sound.

- **Sectors**
  - The EIB finances a broad range of projects in all sectors of the economy. Projects must adhere to at least one of the EIB lending objectives.

- **Financing Facilities**
  - As a rule, the Bank lends up to 50% of the investment costs of a project.
  - The EIB has two main financing facilities:
    - Individual Loans: provided to viable and sound projects and programmes costing more than EUR 25 million which are in line with EIB lending objectives.
    - Intermediate Loans: credit lines to banks and financial institutions to help them to provide finance to small and medium-sized enterprises with eligible investment programmes or projects costing less than EUR 25 million. Microfinance has also been provided by the EIB in some countries.

4. The European Investment Bank

b. Technical Assistance

- The EIB offers a range of upstream technical assistance in addition to financial support. The form of this assistance varies according to geographical constraints.
- To facilitate project appraisal and provision of Technical Assistance, the EIB Projects Directorate employs specialist sectoral economists and engineers who assess and advise on individual projects.

- **Within the EU**, the EIB performs detailed due diligence prior to investment. All projects must follow the environmental and procurement directives of the EU.
  - For the 10 Member States which joined the Union in 2004 and Romania and Bulgaria which joined in 2007, the EIB, European Commission and EBRD have launched a joint initiative to provide technical support for project preparation in the case of large infrastructure schemes which receive finance from the Structural and Cohesion Funds. JASPERS (Joint Assistance to Support Projects in the European Regions)

- In both the ACP and the Mediterranean Neighbourhood (FEMIP) countries, the Bank provides technical assistance for project preparation.

- The forms of technical assistance available include:
  - Studies in the areas of legislation, regulatory reform and the award of concessions
  - Feasibility studies
  - Project management units to avoid delays and cost overruns

4. The European Investment Bank

c. Guarantees

- Within the EU the Bank may provide guarantees for senior and subordinated debt. The guarantee is either a standard guarantee or debt service guarantee similar to that offered by monoline insurers.
- Depending on the underlying funding structure of the operation, an EIB guarantee may be more attractive than an EIB loan.
- It can provide:
  - higher value-added
  - lower capital charges - under Basel II, EIB guarantees provide a zero risk weighting to the guaranteed obligation

- In addition, the Loan Guarantee Instrument for TEN Transportt (LGTT) is designed to guarantee revenue risks during a limited period following construction of TENs projects, notably under a Public Private Partnership (PPP) structure.

- Guarantees are also provided under the Investment Facility for financing African, Caribbean and Pacific Countries

- Guarantees, EU and Member States

4. The European Investment Bank: MDBs and EIB

- Multilateral Development Banks (MDBs) are supranational institutions set up by sovereign states, which are their shareholders.
- They reflect the development aid and cooperation policies established by these states.
- They have the common task of fostering economic and social progress in developing countries by financing projects, supporting investment and generating capital
- MDBs also play a major role on the international capital markets by annually raising the large volume of funds required to finance their loans.
  - How do they differ from the EIB?

4. The European Investment Bank: MDBs and EIB

How do they differ from the EIB?

- On account of the volume of its borrowing and lending, the EIB is sometimes described as the foremost multilateral development bank.
  - However, this assertion has its limits, partly due to the specific nature of the Bank, which is not strictly speaking an MDB (e.g., it has mixed mandates)
- Gaering ratio
- As the financing institution of the European Union, the EIB focuses the bulk of its activity on promoting the balanced development and integration of the European Union by financing projects located in countries with highly developed economies.
  - However, the EIB also provides support in over a hundred non-member countries with which it has concluded association, partnership or pre-accession agreements. Consequently, the EIB manages EU loan aid to these countries. Such loans complement and combine effectively with the grant aid and subsidies deployed by the European Commission on behalf of the Union and its Member States.
- EIB financing operations outside the EU are geared to priorities defined jointly by the Union and beneficiary countries in accordance with guidelines for the conduct of the EU's external policies laid down by the European Council. Hence, Bank lending in these countries necessarily targets a limited number of areas, such as basic infrastructure, communications and industrial joint ventures. Other development requirements such as technical and food aid, training and exchange initiatives, grants and export credit guarantee facilities are covered by Commission programmes financed from budgetary funds.

4. The European Investment Bank: MDBs and EIB

- **Cooperation MDBs and EIB**

  – MDBs maintain cooperative institutional and operational links with each other to ensure effective mutual inputs in their respective fields of activity.

  – For its operations outside the Union, the EIB is in close contact with the World Bank and numerous regional multilateral banks, in particular the European Bank for Reconstruction and Development operating in Central and Eastern Europe.

  – Cooperation between the EIB and MDBs takes the form of both exchanges of information on their respective priorities and action plans and joint project appraisal missions. Cofinancing decisions relating to a growing number of projects give practical expression to these cooperative ties.

  – The EIB participates in the annual general meetings of other multilateral banks, notably the World Bank and the EBRD. It is also a shareholder in the latter, alongside the European Union.

EIB Financial Data

- Subscribed capital
- Paid in
- Callable Capital
- Profit

A Key Ratio

- Outstanding loans cannot exceed 250% of Bank capital (Major difference from other MDBs)

- Articolo 18,comma 5 dello statuto della BEI
  - "il totale degli impegni derivanti dai prestiti e dalle garanzie accordati non deve essere in alcun momento superiore al 250% del capitale sottoscritto".

- Ratio per il 2006: 375/163 = 230%

EIB Financial Data: Capital Ratio

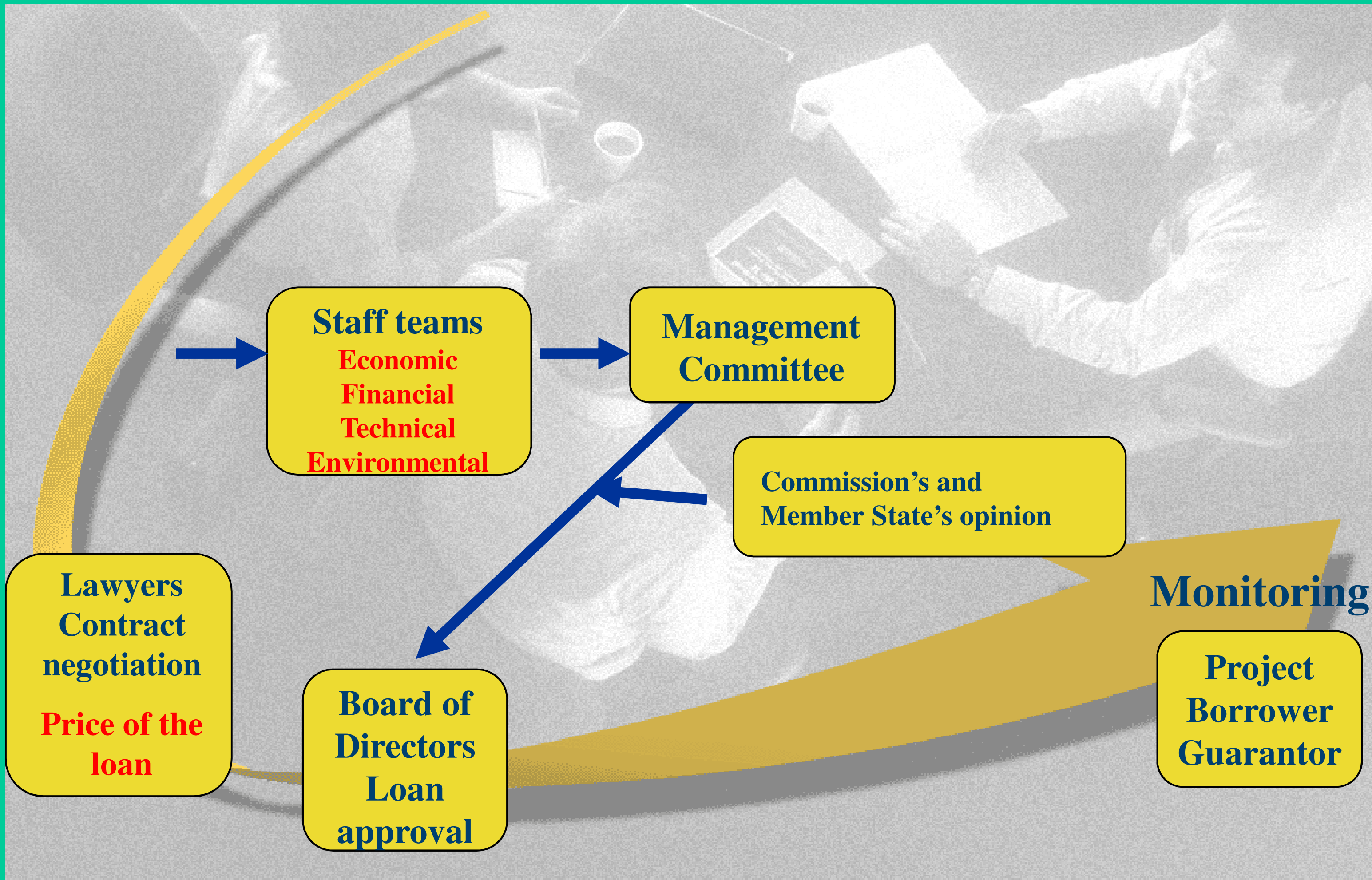
EIB subscribed capital, loans outstanding and lending ratio -1995-2007 millions of Euro						
Year	**Profits**	**Capital Subscribed**	**Paid In Capital**	**Loans Outstanding**	**Loan Ratio**	**Crescita Loan ratio %**
1990 1991 1992 1993 1994	I dati dal 1990 al 1994 non sono disponibili					
1995	1.216.540	62.013.000	4.651.985	114.511.809	1,85	-
1996	1.092.119	62.013.000	4.651.985	126.445.891	2,04	10,42%
1997	1.105.170	62.013.000	4.651.985	142.188.196	2,29	12,45%
1998	1.194.963	62.013.000	4.651.985	155.158.210	2,50	9,12%
1999	1.067.390	100.000.000	6.000.000	179.107.370	1,79	-28,42%
2000	1.280.462	100.000.000	6.000.000	198.743.241	1,99	10,96%
2001	1.311.445	100.000.000	6.000.000	219.818.195	2,20	10,60%
2002	1.293.867	100.000.000	6.000.000	231.455.063	2,31	5,29%
2003	1.423.504	150.000.000	7.500.000	246.210.357	1,64	-29,08%
2004	1.381.017	163.653.737	8.182.687	264.678.410	1,62	-1,47%
2005	1.388.877	163.653.737	8.182.687	292.143.664	1,79	10,38%
2006	1.590.911	163.653.737	8.182.687	322.738.287	1,97	10,47%
2007	1.633.460	164.808.169	8.240.409	320.002.910	1,94	-1,54%

EIB Financial Data: Capital Ratio

EIB Financial Data: Subscribed Capital, Loans Outstanding, Profit and Capital Ratio															
In EUR ' 000	**From 2007**	**Before 2007**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
LOAN RATIO			**1,85**	**2,04**	**2,29**	**2,50**	**1,79**	**1,99**	**2,20**	**2,31**	**1,64**	**1,62**	**1,79**	**1,97**	**1,94**
LOANS	**ASSETS**	**ASSETS**													
Signed in the year	Voir activité financement BEI	Voir activité financement BEI	21.408.000	23.240.000	26.202.000	29.526.000	31.800.000	36.000.000	36.776.000	39.600.000	42.300.000	43.200.000	47.400.000	45.700.000	47.800.000
Outstanding	3 c / 4 / Undisb	3 c / 4 / Undisb loans	114.511.809	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
of which undisbursed	Undisbursed loans	Undisbursed loans (off-	18.545.045	20.928.610	23.090.380	22.267.790	25.925.709	30.049.630	34.253.212	36.522.346	40.364.432	42.938.437	48.268.241	53.571.902	53.606.621
CAPITAL	**LIABILITIES**	**LIABILITIES**													
Subscribed	6. subscribed or 7. subscribed	7. subscribed	62.013.000	62.013.000	62.013.000	62.013.000	#########	#########	#########	#########	#########	#########	#########	#########	#########
Own funds (including General banking risk reserve)	6 / 7 / 8 / 9 / 10 or 7/8/9/10/11	7/8/9/10/11	16.829.925	17.972.044	18.962.095	19.306.853	20.494.244	21.839.706	23.296.151	24.615.018	25.983.522	29.637.506	31.086.383	32.677.294	34.541.407
paid in capital	6 total	7 total	4.651.985	4.651.985	4.651.985	4.651.985	6.000.000	6.000.000	6.000.000	6.000.000	7.500.000	8.182.687	8.182.687	8.182.687	8.240.409
reserve funds	7.a	8.a	6.201.300	6.201.300	6.201.300	6.201.300	10.000.000	10.000.000	10.000.000	10.000.000	13.641.249	16.365.374	16.365.374	16.365.374	16.480.817
additional reserves	7.b	8.b	4.310.100	5.526.640	5.526.640	6.008.605	1.556.854	2.124.244	3.154.706	3.717.060	0	538.361	1.995.112	3.624.498	5.245.781
Special supplementary reserve										750.000					
general banking reserve funds	P&L /14	fund for general banking risks /6	450.000	500.000	600.000	750.000	870.000	935.000	1.080.000	1.105.000	1.050.000	915.000	975.000	0	0
SFF reserve funds	8	9							250.000	250.000	500.000	500.000	500.000	1.250.000	1.250.000
Amsterdam/venture capital reserve funds	9	10			200.000	500.000	1.000.000	1.500.000	1.500.000	1.499.091	1.868.769	1.755.067	1.679.333	1.663.824	1.690.940
Profit of previous year					677.000										
profit for the year	Profit and loss /15	Profit and loss /15	1.216.540	1.092.119	1.105.170	1.194.963	1.067.390	1.280.462	1.311.445	1.293.867	1.423.504	1.381.017	1.388.877	1.590.911	1.633.460
USE OF THE SURPLUS OF THE PREVIOUS YEAR															
paid-in capital/reserve funds				0	0	0	694.963	0	0	0	543.000	885.000	0	0	0
additional reserves				1.216.540	0	481.965	0	567.390	1.030.462	562.354	0	538.361	1.381.017	654.386	1.621.283
Special supplementary reserve				0	0	0	0	0	0	750.000	0	0	0	0	0
general banking reserve funds				50.000	100.000	150.000	120.000	65.000	145.000	25.000	-55.000	-135.000	60.000	0	0
SFF reserve funds				0	0	0	0	0	250.000	0	250.000	0	0	750.000	0
Amsterdam/venture capital reserve funds				0	200.000	300.000	500.000	500.000	0	0	500.000	0	0	0	0
payment of 1990 capital increase				0	215.000	0	0	0	0	0	0	0	0	0	0
profit of previous year to be allocated				0	677.000	0	0	0	0	0	0	0	0	0	0
exceptional dividend				0	0	1.000.000	0	0	0	0	0	0	0	0	0
						931.965	1.314.963	1.132.390	1.425.462	1.337.354	1.238.000	1.288.361	1.441.017	1.404.386	1.621.283
						173.205	-120.000	-65.000	-145.000	-25.909	55.867	135.143	-60.000	-15.509	-30.372

Note: Release of the general banking reserve funds is passed directly into the additional reserve funds. In the published accounts, it transited first through the surplus of 2006.

5. EIB: PROJECT CYCLE



A sound project portfolio

Project Analysis

- Cost Benefit Analysis (CBA)
- Real Options

Cost-Benefit Analysis: An Example

Alternative 1							
Year	Debt Service Costs	O&M Costs @6%	Admin. Costs @ 6%	Discounted Costs	Discount Factors	Benefits @ 4%	Discounted Benefits
1	$113,259	$395,500	$100,000	$563,666	0.925926	$629,200	$582,593
2	$113,259	$419,230	$106,000	$547,401	0.857339	$654,368	$561,015
3	$113,259	$444,384	$112,360	$531,870	0.793832	$680,543	$540,237
4	$113,259	$471,047	$119,102	$517,025	0.735030	$707,764	$520,228
5	$113,259	$499,310	$126,248	$502,826	0.680583	$736,075	$500,960
6	$113,259	$529,268	$133,823	$489,232	0.630170	$765,518	$482,406
7	$113,259	$561,024	$141,852	$476,207	0.583490	$796,139	$464,539
8	$113,259	$594,686	$150,365	$463,717	0.540269	$827,984	$447,334
9	$113,259	$630,367	$159,385	$451,730	0.500249	$861,104	$430,766
10	$113,259	$668,189	$168,948	$440,217	0.463193	$895,548	$414,812
11	$113,259	$708,280	$179,085	$429,150	0.428883	$931,370	$399,449
12	$113,259	$750,777	$189,830	$418,505	0.397144	$968,624	$384,654
13	$113,259	$795,824	$201,220	$408,256	0.367698	$1,007,369	$370,408
14	$113,259	$843,573	$213,293	$398,382	0.340461	$1,047,664	$356,689
15	$113,259	$894,188	$226,090	$388,862	0.315242	$1,089,571	$343,478
Terminal Value						$600,000	$189,145
Totals	$1,698,885	$9,205,646	$2,327,597	$7,027,047		$12,598,841	$6,988,713
NPV							-$38,334
B/C Ratio							6,90625

Cost-Benefit Analysis: An Example

Alternative 2							
Year	Debt Service Costs	O & M Costs @ 5%	Admin. Costs @ 6%	Discounted Costs	Discount Factor	Benefits @ 4%	Discounted Benefits
1	$205,926	$400,000	$90,000	$644,375	0.925926	$700,000	$648,148
2	$205,926	$420,000	$95,400	$618,421	0,857339	$728,000	$624,143
3	$205,926	$441,000	$101,124	$593,826	0.793832	$757,120	$601,026
4	$205,926	$463,050	$107,191	$570,506	0.735030	$787,405	$578,766
5	$205,926	$486,203	$113,623	$548,381	0.680583	$818,901	$557,330
6	$205,926	$510,513	$120,440	$527,376	0.630170	$851,657	$536,688
7	$205,926	$536,038	$127,667	$507,421	0.583490	$885,723	$516,811
8	$205,926	$562,840	$135,327	$488,453	0.540269	$921,152	$497,670
9	$205,926	$590,982	$143,446	$470,411	0.500249	$957,998	$479,238
10	$205,926	$620,531	$152,053	$453,240	0.463193	$996,318	$461,488
11	$205,926	$651,558	$161,176	$436,886	0.428883	$1,036,171	$444,396
12	$205,926	$684,136	$170,847	$421,301	0.397114	$1,077,618	$427,937
13	$205,926	$718,343	$181,098	$406,441	0.367698	$1,120,723	$412,087
14	$205,926	$754,260	$191,964	$392,262	0.340461	$1,165,551	$396,825
15	$205,926	$791,973	$203,481	$378,725	0.315242	$1,212,174	$382,128
Terminal Value						$1,000,000	$315,242
Totals	$3,088,890	$8,631,425	$2,094,837	$7,458,026		$14,016,511	$7,879,923
NPV							$421,897
B/C Ratio							10.566

Value Added

Annex 3

VALUE ADDED SHEET

SOLARWAFER THUERINGEN

PILLAR 1: Contribution to EU priority Objectives

COMMON INTEREST (267 - c) ENVIRONMENT	**Medium**
TACKLING CLIMATE CHANGE - Renewable energy (wind, solar, biomass, bio fuels, etc.)	YES
ECONOMIC AND SOCIAL COHESION/REGIONAL DEVELOPMENT (267 - a) EIB CONVERGENCE REGIONS (2007-2013)	**High**
Convergence regions (stricto sensu) - STRENGTHENING OF BASIC INFRASTRUCTURE POTENTIAL	YES

PILLAR 2: Quality & Soundness of the Project — **High**

1. Economic sustainability

Economic profitability		
	ERR (Economic Rate of Return)	Qualit. estimate
	Other method (quantitative, qualitative)	Medium
Financial profitability		
	FIRR (Financial Internal Rate of Return)	>15%
	Other method (quantitative, qualitative)	Not applicable
Management		
	Quality of management (Operation)	High

2. Environmental sustainability

Overall environmental rating	Acceptable with minor negative residual impacts (B1)
Environmental externalities taken in account in ERR	Yes

3. Other Quality Elements

PILLAR 3: Financial Value Added — **High**

1.Qualitative Elements — Medium

Longer maturity / grace period	YES
Diversification of funding	Medium
Choice of currency	NO
Co-financing with Commission, IFIs	NO
Innovative structuring	NO
Signalling / Catalytic effect	High

2. Quantitative Element — >20bp

Value Added

12

ANNEX 3

RZB KMU GLOBALDARLEHEN (AT)

PILLAR 1: Contribution to EU Priority Objectives	High
Objectives	
SMEs	70% (percentage)
Dedication	YES

PILLAR 2 : Quality of the intermediary	Medium
Experience in the sector or objective targeted by the EIB GL	Medium
Experience in allocating previous GLs (repeat operations only)	High
Quality of information flow and reporting to EIB	Medium
EIB contribution to institution building with intermediary (e.g. new member countries)	Medium

PILLAR 3: Financial Value Added to the final beneficiary	Medium
Longer maturity	Medium
Information to the final beneficiary	Medium
Financial advantage transferred to the final beneficiary	Medium
Contribution to better market coverage and/or increased competition in financial sector relevant to targeted beneficiaries	Medium
Does GL contain special financial characteristics? (e.g. interest rebate, risk sharing, securitization)	NO

Value Added

14

Annex 3

VALUE ADDED SHEET

ROLLS-ROYCE R&D II

PILLAR 1 : Contribution to EU priority Objectives

COMMON INTEREST (267 - c) I2I RESEARCH AND DEVELOPMENT	Medium
FACILITATING EUROPEAN HUMAN RESOURCES IN SCIENCE AND TECHNOLOGY - Development of poles, knowledge networks of centres of excellence in R&D, like in new materials, health care	YES
FURTHERING PRIVATE SECTOR INVESTMENTS IN R&D AND INNOVATION - Private sector R&D and innovation (product/process/service, IPR and technology licensing, emphasis on SMEs); (including product and process prototypes, pilot plants and first stage industrial and commercial applications)	YES

PILLAR 2 : Quality & Soundness of the Project — *High*

1.Economic sustainability

Economic profitability	ERR (Economic Rate of Return)	6-10%
	Other method (quantitative, qualitative)	
Financial profitability	FIRR (Financial Internal Rate of Return)	6-10%
	Other method (quantitative, qualitative)	
Management	Quality of management (Operation)	High

2.Environmental sustainability

Overall environmental rating	Acceptable with minor negative residual impacts (B1)
Environmental externalities taken in account in ERR	No

3.Other Quality Elements

PILLAR 3 : Financial Value Added — *High*

1.Qualitative Elements — High, Medium, Moderate, Low

Longer maturity / grace period	YES
Diversification of funding	Medium
Choice of currency	NO
Co-financing with Commission, IFIs	NO
Innovative structuring	YES
Signaling / Catalytic effect	NO

2. Quantitative Element — over 20bps

Value Added

14

Annex 3

Commerzbank - Environment GD II

PILLAR 1: Contribution to EU Priority Objectives	Medium
Objectives	
Environment	70%
Dedication	YES

PILLAR 2 : Quality of the intermediary	High
Experience in the sector or objective targeted by the EIB GL	High
Experience in allocating previous GLs (repeat operations only)	High
Quality of information flow and reporting to EIB	High
EIB contribution to institution building with intermediary (e.g. new member countries)	Low

PILLAR 3: Financial Value Added to the final beneficiary	Medium
Longer maturity	Medium
Information to the final beneficiary	High
Financial advantage transferred to the final beneficiary	Medium
Contribution to better market coverage and/or increased competition in financial sector relevant to targeted beneficiaries	Moderate
Does GL contain special financial characteristics? (e.g. interest rebate, risk sharing, securitization)	NO

Value Added

13

Annex 1

Value Added Sheet

02.09.2008

VALUE ADDED SHEET – INVESTMENT LOAN

A2 STRYKOW - KONOTOPA TEN-PPP (2008-0067)

PILLAR 1: Contribution to EU Objectives	**Medium**
COP Priority Objective(s)	
Convergence (EU 27)	Medium
TENs (Transport and Energy)	Medium
Other Objective(s)	
- none -	- n/a -

PILLAR 2: Quality and Soundness of the Investment	**Medium**
1. Economic/Financial Sustainability	
ERR (Economic Rate of Return)	>15%
Qualitative rating (if ERR not applicable)	
Environmental externalities taken into account in ERR	
FIRR (Financial Rate of Return)	
Qualitative rating (if FIRR not applicable)	
FIRR to be appraised during stage 2.	
2. Environmental Sustainability	
Environmental rating	
3. Other Quality Elements	
Promoter capability: design and implementation phase	Not documented
Promoter capability: operation phase	Not documented
Promoter: monitoring track record (if applicable)	Not documented

First stage appraisal. Promoter capacity, FIRR (plus review of ERR) plus outcome of procurement and environmental procedures to be assessed during stage 2. Overall rating of Quality and Soundness of the Investment is expected to be reclassified as "High" once outcome of procurement and environmental procedures are concluded to the Bank's satisfaction

PILLAR 3: EIB Contribution	**High**
1. Qualitative elements	**Medium**
Longer maturity / grace period	Yes
Diversification of funding	Medium
Choice of currency	Yes
Co-financing with Commission, IFIs	YES no grant
Innovative structuring	Yes

Value Added

Annex 2

23.07.2008

VALUE ADDED SHEET - FRAMEWORK LOAN

ECONOMIC COMPETITIVENESS CO-FINANCING (2007-0442)

PILLAR 1: Contribution to EU Objectives	**High**
COP Priority Objective(s)	
I2i	High
SMEs (EU27)	High
Convergence (EU 27)	High
Other Objective(s)	
- none -	- n/a -

PILLAR 2: Quality and Soundness of the Investment	**High**
Overall strategic investment quality	High
Promoter: Programming and programme management capability	High
Promoter: Implementation, monitoring and reporting capability	Medium
Promoter: monitoring track record (if applicable)	High
Experience in the sectors and objectives targeted by the EIB FL	Medium

PILLAR 3: EIB Contribution	**High**
1. Qualitative elements	**High**
Longer maturity / grace period	Yes
Diversification of funding	Medium
Choice of currency	Yes
Co-financing with Commission, IFIs	YES with grant
Innovative structuring	No
Signalling / Catalytic effect	Medium
2. Quantifiable elements	**> 20 bps**
3. Other EIB contributions	**Moderate**
Financial advice	No
Support to project preparation	Yes
Technical assistance	No
Other contribution	No

Value Added

-14-

19.08.2008

VALUE ADDED SHEET – INVESTMENT LOAN

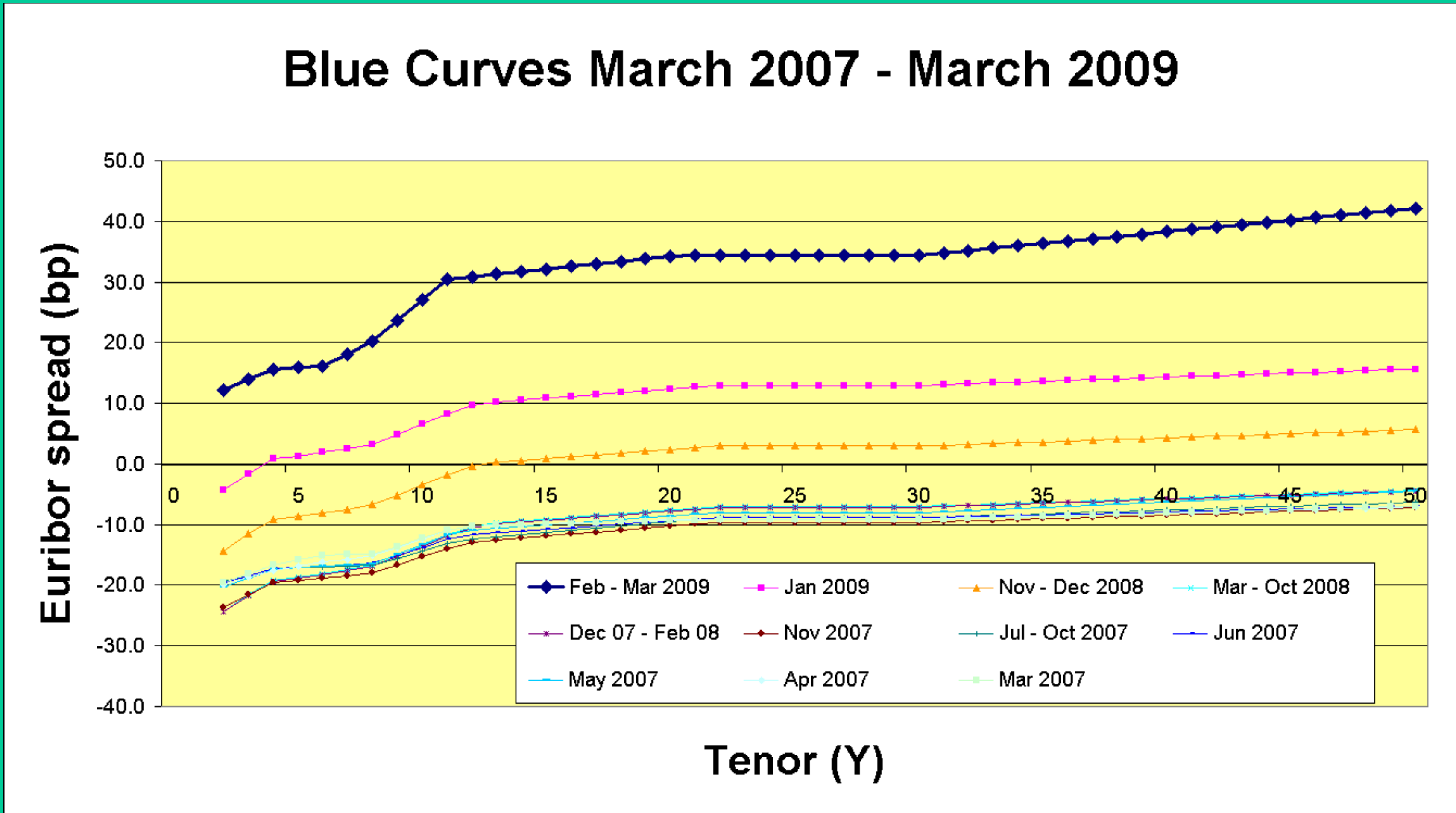
WISSENSCHAFT UND TECHNOLOGIE BERLIN (2008-0258)

PILLAR 1: Contribution to EU Objectives	**High**
COP Priority Objective(s) I2i	High
Other Objective(s) - none -	- n/a -

PILLAR 2: Quality and Soundness of the Investment	**High**
1. Economic/Financial Sustainability	
ERR (Economic Rate of Return)	Qualit. estimate
Qualitative rating (if ERR not applicable)	Medium
Environmental externalities taken into account in ERR	No
FIRR (Financial Rate of Return)	Qualit. estimate
Qualitative rating (if FIRR not applicable)	Medium
2. Environmental Sustainability	
Environmental rating	Acceptable with minor negative residual impacts (B1)
3. Other Quality Elements	
Promoter capability: design and implementation phase	High
Promoter capability: operation phase	High
Promoter: monitoring track record (if applicable)	Not applicable

PILLAR 3: EIB Contribution	**Moderate**
1. Qualitative elements	**Moderate**
Longer maturity / grace period	No
Diversification of funding	High
Choice of currency	No
Co-financing with Commission, IFIs	No
Innovative structuring	No
Signalling / Catalytic effect	Medium
2. Quantifiable elements	**<= 5 bps**
3. Other EIB contributions	**Low**
Finance advice	No
Support to project preparation	No
Technical assistance	No
Other contribution	No

Blue Curves of the EIB

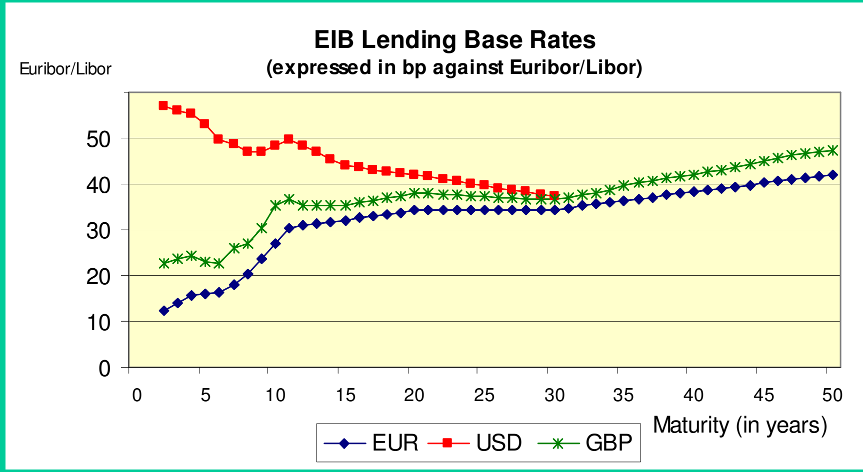


Loan Rate Setting (Blue Curve)

EIB Lending Base Rates[1]
(Blue Curve)
As of 4th February, 2009

EIB Lending Base Rates (Blue Curve) are expressed in terms of spread against Euribor 3M and are based on the Net Funding Result (NFR) estimated for 2009 – 2011.

Curves in currencies other than EUR are derived from the Blue Curve by using standard market information (i.e. cross currency swap quotations).



The resulting spreads (in bps vs Euribor/Libor before mark-up) are [2]:

	Maturity (in years) 3	5	10	15	20	25	30	50
EUR (Blue Curve)	13.97	15.86	27.06	32.13	34.24	34.42	34.42	42.15
USD	55.97	53.00	48.22	43.96	41.84	39.62	37.35	n.a.
GBP	23.79	23.07	35.25	35.49	37.90	37.31	36.50	47.46

For information: the table below shows the pool legacy spreads in the main currencies valid for the quarter beginning 15 December, 2008. The spreads are expressed in bp against Euribor / Libor before mark-up.

Currency	EUR	GBP	USD
Pool spread (bp)	-11.0	-17.0	-10.0

[1] before mark-up and as defined in the document CA/423/05 on Interest Rate Setting System Annex II: Proposed Blue Curve.
[2] USD and GBP spreads derived from the EUR spreads using market data.

Loan Rate Setting (Blue Curve)

- Measures and reports the funding cost of the Bank through the Net Funding Result (NFR) indicator;
- Computes the Blue Curve ensuring balance between loan base rate and funding cost;
- Makes proposals to ALCO/CD for Blue Curve management.

Net Funding Result (NFR)

The **NFR** is the indicator for measuring **the Bank's « funding advantage » on capital markets**

- Each new issue contributes to NFR generation

  *NFR (issue) = Nominal * Sub-Euribor spread * Duration*

- Ex : EUR 1 bn issue at Euribor – 5 bp (0.05%), 10y maturity, i.e., 8.4 y duration

  => NFR generation = 1bn * 5 bp * 8.4 = EUR 4.20 M

Credit Risk Management

Tools supporting credit risk management are:

- Exposure Limits & Minimum Eligibility Criteria (MQS);
- Internal Rating Methodology (IRM);
- Internal Loan Grading (LG);
- Large Exposures Control;
- Basle II (Capital allocations and stress testing).

Exposure Limits (1)

Limits are set for: 1) individual counterparts, 2) product types and 3) sectors.

1) Individual counterparts are:

- Normally set in risk-weighted terms;
- Generally defined with reference to the counterpart's own funds, e.g.:
  - Threshold for setting SSSR Corporate exposure limits: 10%,
  - SSSR Bank exposures: e.g. up to 5% for A rated Banks;
- Absolute SSSR Corporate exposure limit of 5% of EIB own funds (EUR 35.8 bn * 5% = EUR 1.8 bn)

Exposure Limits (2)

2) Product types

- Total MinAC exposures with a loan grading of D+ must not exceed 3% of total Risk portfolio;
- Aggregate volume of SFF operations limited by the amount available under the SFF Reserve (currently EUR 2,750 m to be increased to 4,750 m with the current proposed capital increase);
- SFF single operation limits are function of loan grade at signature (CRPG, section 10.3.2);
- LGTT operations are:
  - capped at 1.4 x SFF limits,
  - restricted to 20 % of senior debt of the project;

3) Sector limits are set on a case by case basis [e.g. Telecoms (7%), UK water (4%), Automotive (4%), Airlines and Aircraft (3%)].

Limits are currently under revision.

Loan Grading

Concept of Expected Loss

Expected Loss = PV (**Default Probability** *x* **Exposure at Default** *x* **Loss Given Default**)

Main Drivers	Default Probability	Exposure at Default	Loss Given Default
	Rating of borrower and guarantor; correlation	Cash Flows	Seniority / Collateral

The Expected Loss model is based on the same parameters as Basel II for Credit Risk

Loan Grading Categories

Operation Grading	Expected Loss (% of principal)
A +	> 0% ≤ 0.1%
A -	> 0.1% ≤ 0.2%
B +	> 0.2% ≤ 0.3%
B -	> 0.3% ≤ 0.5%
C	> 0.5% ≤ 1%
D +	> 1% ≤ 2%
D -	> 2% ≤ 3%
E1+	> 3% ≤ 5%
E2+	> 5% ≤ 7%
E3+	> 7% ≤ 10%
E -	> 10% ≤ 25%
F	> 25% / default

Risk Pricing-1

- Risk pricing is charged according to the principles established in CRPG.

- Two types of Risk Pricing :

  - EL pricing is computed with the Loan Grading internal software (LG) on a deal-by-deal basis;

  - UL pricing is computed by multiplying capital allocations “apportioned” to each exposure in the portfolio using “CreditMetrics”, an external software, by an “incremental return on capital”.

Risk Pricing-2

For SFF operations :

- **EL and**
- **UL / Incremental Return on capital (IRC) :**

(1)	(2)	(3)	(4)
Operation Grading	Incremental Return on Capital	Allocated Capital	Incremental Return on Capital (IRC) = (2) x (3)
D-	3%	10%	30 bp
E1+	3%	15%	45 bp
E2+	6%	15%	90 bp
E3+	9%	15%	135 bp
E-	priced at market		
Equity-type - portfolio			
Equity-type - individual			

6. EIB and the Crisis

EIB Directors approve anti-crisis measures for 2009-2010

Date: 16/12/2008

Additional support for small and medium-sized companies

Comprehensive package on energy and climate change, including the automotive industry

Additional support for Central and Eastern Europe

Capital increase

The European Investment Bank's Board of Directors today approved the EIB's Corporate Operational Plan 2009-2011 (COP), setting out increased lending targets and other practical measures to mitigate the current financial and economic crisis in response to the request of EU Member States.

The EIB will increase its total lending volume by some 30% (EUR 15bn) in both 2009 and 2010, compared with the level of previous years. The additional global investment value expected to be leveraged in 2009 and 2010 should reach around EUR 72bn, based on a historical leverage effect of five times the Bank's financing. [1]

Lending to small and medium-sized companies (SMEs) will rise by 50% to EUR 15bn over two years (i.e an extra EUR 2.5bn per year) and a new product line will be developed allowing risk sharing with banks. A similar and complementary approach is being developed for "mid-cap" companies for an additional EUR 1bn per year.)."

EIB and the Crisis

Additional lending within the energy and climate change package will amount to EUR 6bn per year. This includes a clean transport facility for the automotive and other transport industries, their original equipment manufacturers and component suppliers. The facility will target significant CO2 reduction through research, development and innovation expenditure, as well as tangible fixed assets in related infrastructure and production plants.

Since the financial crisis risks having a disproportionate impact on some Member States, the Bank will increase its convergence lending by a further EUR 2.5bn per year. To fulfil this objective and its reinforced SME priority, the EIB already has some EUR 5bn earmarked and awaiting utilisation to help support SMEs through the local banking sector in Central and Eastern Europe and candidate countries, and would be prepared to increase this in the next two years if necessary.

To enable the EIB to meet these increased lending targets, the Board of Directors agreed to propose to the Board of Governors that the Bank bring forward the capital increase previously envisaged for 2010. The EIB's subscribed capital will be increased by some EUR 67bn to EUR 232bn. As usual, the paid-in capital will be 5 percent of the subscribed capital. The increase in paid-in capital will be effected through a transfer from the EIB's additional reserves to its capital.

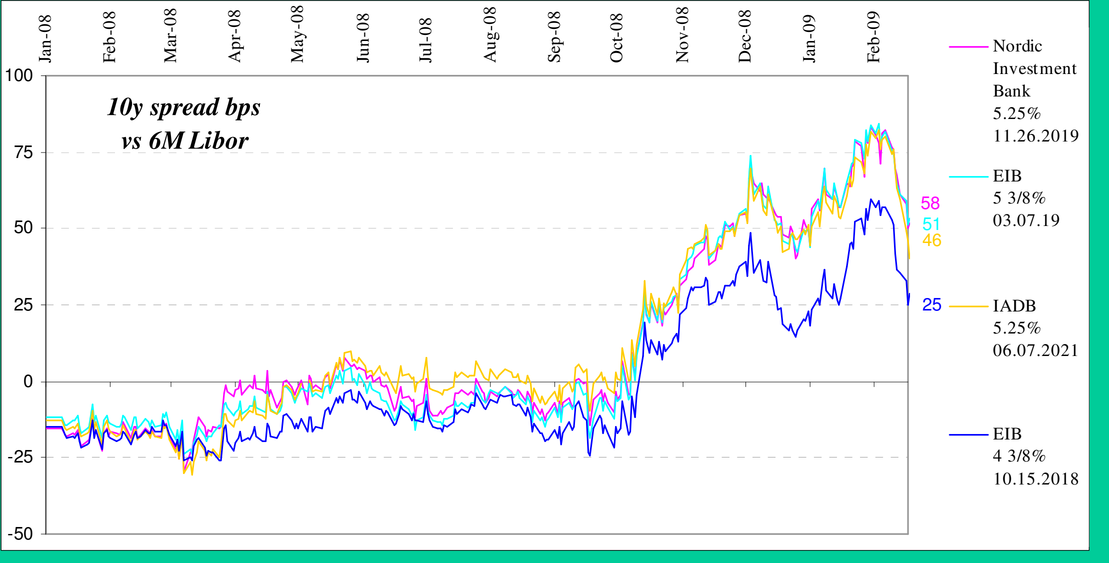
"The EIB's additional financial support will allow quick disbursements and contribute to the real economy, notably by protecting good projects and helping viable companies in these difficult times", EIB President Philippe Maystadt said. "As recommended by the European Council, this programme is temporary (for 2009-2010), targeted (on SME's and climate change) and timely (with quick implementation

EIB and the Crisis

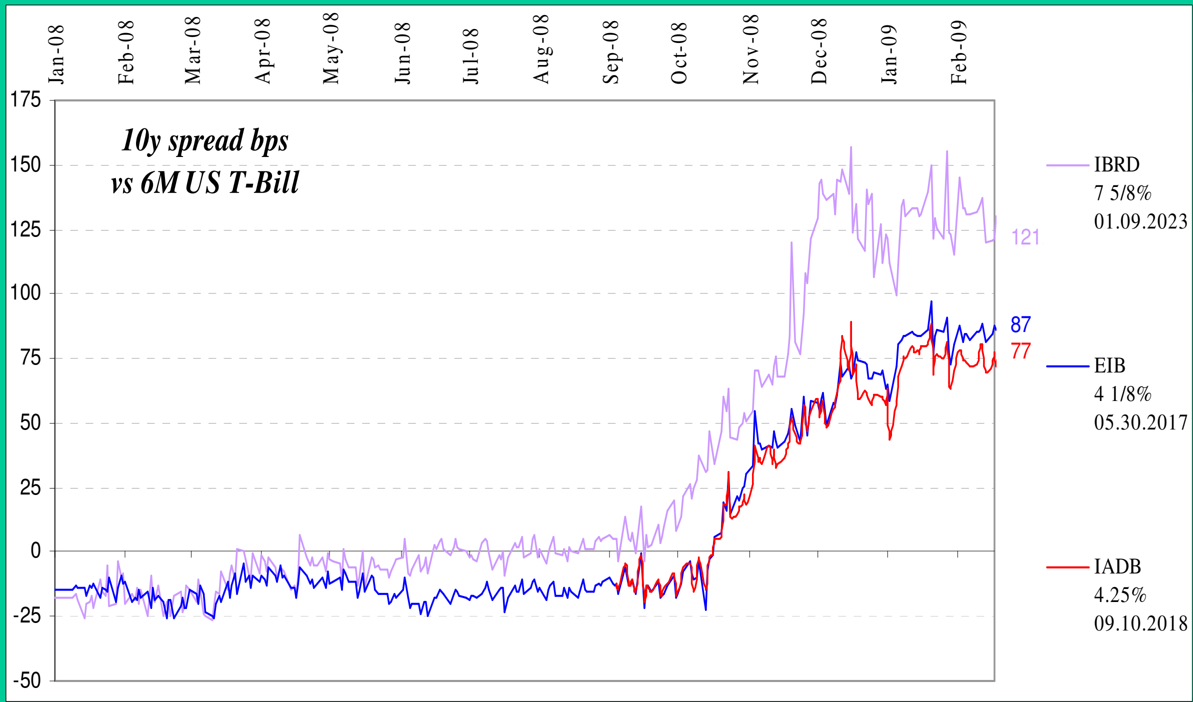
EIB Additional Financial Suppor 2009-2011		
Item	Additional annual EIB financing proposed (EUR bn) in each 2009 and 2010	Additional global investment value (EUR bn) expected to be leveraged in 2009 and 2010
SMEs and mid-caps	3.05	14
Energy, climate change and infrastructure, including clean transport	6	36
Convergence lending	2.05	10

Evolution of Spreads for 10 years available bonds of EIB and other main International Financial Institutions, on secondary markets since June 2008

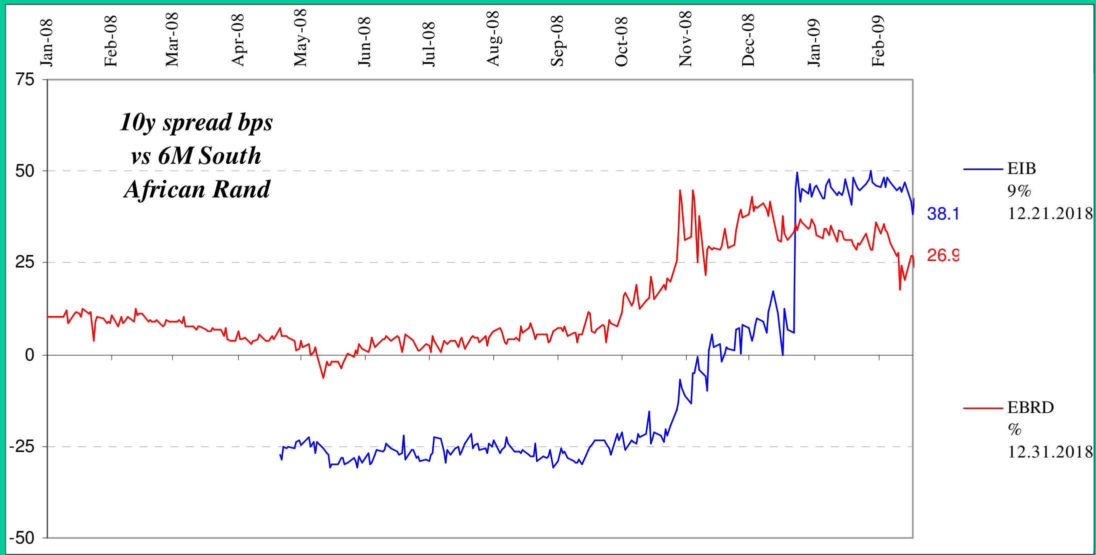
- **Bonds issued in GBP** *(Basis points vs 6M Libor as of 23.02.2009)*



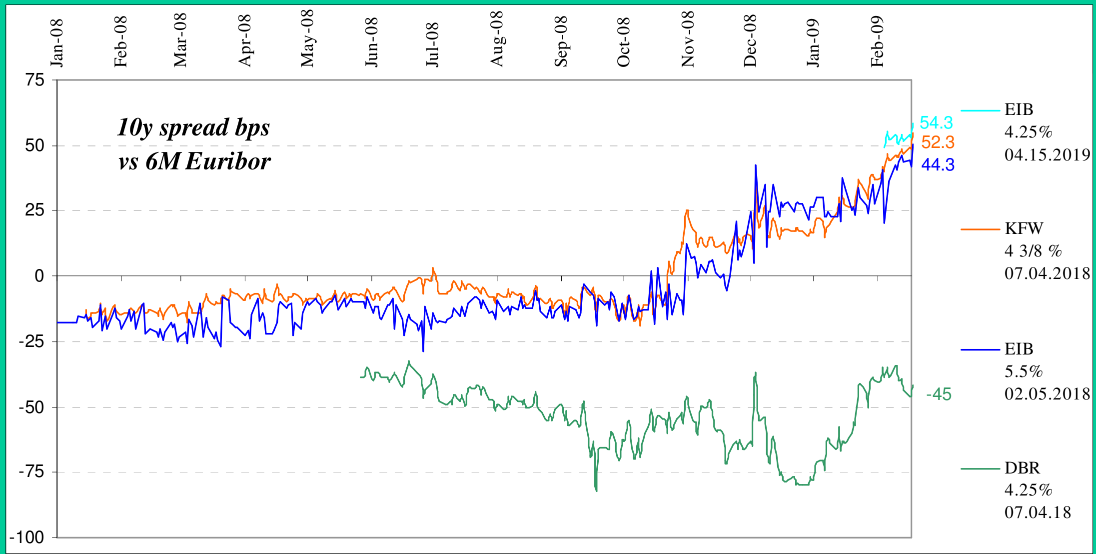
•**Bonds** **issued in USD** *(Basis points vs 6M US T-Bills as of 23.02.2009)*



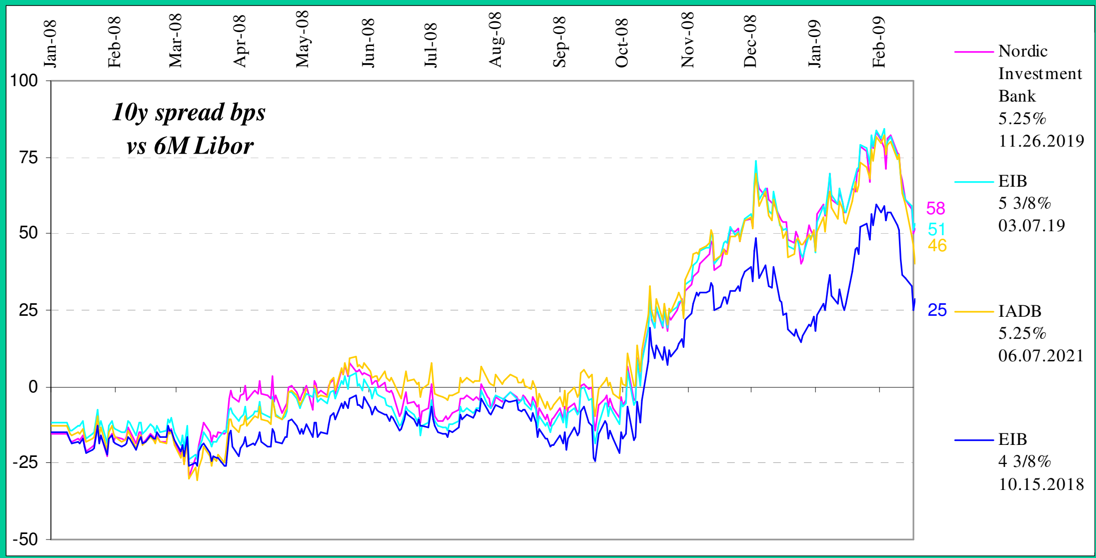
•**Bonds issued in ZAR** *(Basis points vs 6M South African Rand as of 23.02.2009)*



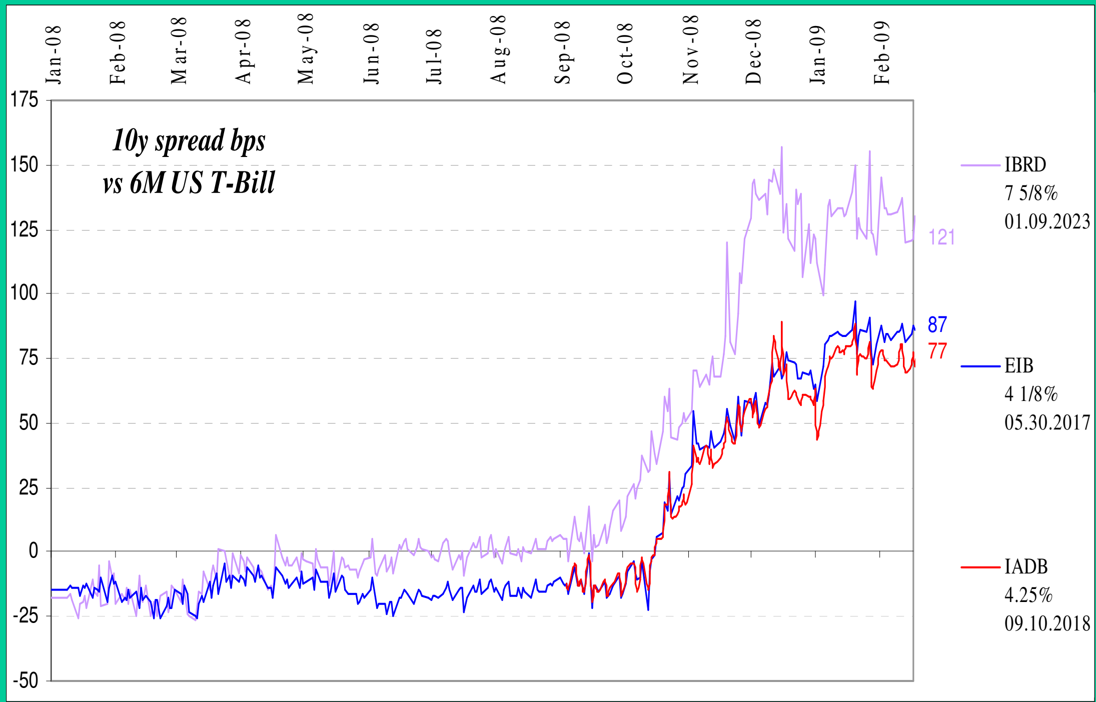
- **Bonds issued in EUR** *(Basis points vs 6M Euribor as of 23.02.2009)*



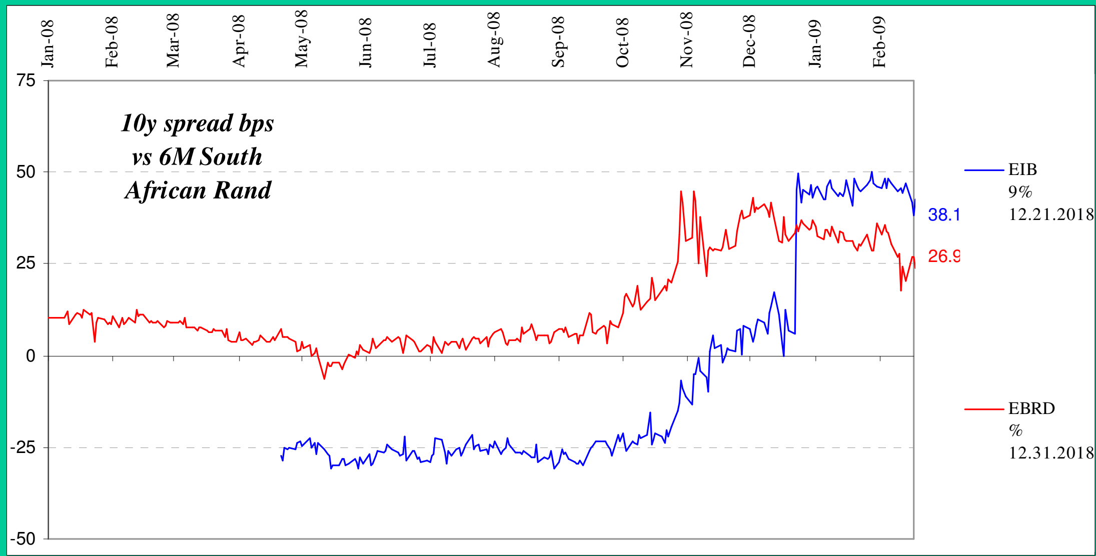
•**Bonds issued** **in GBP** *(Basis points vs 6M Libor as of 23.02.2009)*



•**Bonds** **issued in USD** *(Basis points vs 6M US T-Bills as of 23.02.2009)*



•**Bonds issued in ZAR** *(Basis points vs 6M South African Rand as of 23.02.2009)*



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