New Models for Financing Infrastructure PPP’s: A Commercial Project Lender’s Perspective

Bruno Mejean, Managing Director
NORD/LB New York Branch
Day 2
Risks & Responsibilities

Session 6
Service Standards, Tariffs & Subsidy

Session 7
Responsibilities & Risks

Session 8
Contingent Liability Management

Subnational Projects

Session 9
Combining EU Funding with Private Finance

Session 10
Alternative Financing

Session 10.1
Project Finance Lender’s Perspective

Output Based Aid

Day 2
New Models for Financing Infrastructure PPP’s: A Commercial Project Lender’s Perspective

Agenda

- Introduction: Who is Nord/LB? PPP references
- Case Example: Tlalnepantla Waste Water Treatment Concession in Mexico
- Case Example: Castrop-Rauxel Secondary School & Sport Halls under the German Public Forfaiting Model
- Conclusions and Outlook
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Who is NORD/LB?

- 8th Largest German Bank (in terms of Equity) with a balance sheet of $267 Bn
- Landesbank of Lower Saxony, Saxony-Anhalt, Mecklenburg – Western Pomerania and Bremen
- Focused on the Baltic Rim (with a 49% ownership in Bank DnB Nord A/S)
- 2007 Net Income of Euro 305MM (IFRS) with no subprime exposure
- Stable ratings of A (S&P) Aa2 (Moody’s) and A (Fitch)
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NORD/LB PPP References

- Euro 1.6 Bn Portfolio in roads, mass transit, schools, hospitals, other facilities
- MLA and Co-Bookrunner in largest Road Privatization in the Americas to date: MXP 37.1 Bn Red de Carreteral de Occidente in Mexico
- MLA and Co-Syndication Agent in first and largest Light Rail PPP Project in the Americas: C$600 MM Canada Line in Vancouver
- Sole Arranger for Water Treatment Concessions in Mexico involving local currency loans via interest rate, currency and inflation-indexed swaps
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Example: Tlalnepantla Waste Water Treatment Project in Mexico

- **Sponsors:** OPDM WATER UTILITY of the MUNICIPALITY of TLALNEPANTLA

- **Project:** Construction and Operation of a Waste Water Treatment Facility (200 liters/sec) to Recycle Water for Industrial Reuse. Project also Funds Survey and Rehabilitation of Water Distribution Network to Reduce Physical and Commercial Water Losses

- **Total Amount** = US$ 11 Million
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Tlalnepantla Contractual Structure

- MEXICAN FINANCING INSTITUTIONS
- MEXICAN INSTITUTIONAL INVESTORS

IFC Counter-guarantee

CREDIT ENHANCEMENT
(DEXIA Letter of Credit)

TRUST
issued BONDS
(Certificados Bursátiles)

MUNICIPALITY of TLALNEPANTLA

TARIFF

WATER AND SANITATION SERVICES

OPDM
WATER UTILITY of the MUNICIPALITY of TLALNEPANTLA

USERS
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Project Participants

- Municipality of Tlalnepantla
- OPDM Water Utility
- Mexican Trust as legal Issuer: Banco Santander Mexicano
- Credit Enhancement: Dexia
- Participant with Dexia: IFC
- Arranger: Protego
- Placement Agent: Deutsche Bank & Santander
- Mexican Institutional Investors
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**Challenges**

- Structure / Size -- First Transaction of its kind….
- Municipal Risk
- New Funding Source – Domestic Capital Markets

*But on the Positive Front……*

- Solid Credit Rating of Municipality
- IFC’s Involvement
- Deepening Institutional Investor Pool
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A Commercial Project Lender’s Perspective

**Financing Structure**

- Municipal Water Utility’s Bond (rated AAA.mx):
  - 10-year MX$95,900,000 (~29 Million UDIS)
  - 5.5% per annum in UDIS (UDI – Inflation adjusted Unit)
  - Repayment Source: Municipal Water Tariffs (Δ annually)
  - Back Stop provided by the Municipality (rated AA.mx)
  - No Sovereign Guarantees nor Federal Tax Transfers Provided
  - Bond’s Partial Credit Guarantee: 90% at closing
    - Letter of Credit provided by DEXIA (NY Branch)
  - Credit Enhancement Risks shared by:
    - DEXIA (US$5.3 million) and IFC (US$3 million)
  - Project Finance features: escrow accounts, debt service reserve, cash sweep
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**Inflation-Index Example**

Loan Disbursement: May 15, 2003  
First Repayment: Nov. 15, 2003

Value of UDIS on May 15, 2003 = MX$3.269486  
Value of UDIS on Nov. 15, 2003 = MX$3.318374

Loan Amount = **MX$95'900,000** = **29'331,827 UDIS** (on May 15, 03)

**Amortization** (1st. Repayment):

- Semi-Annual Payment = 1’466,591 UDIS
- Interests: 5.5% p.a. = 806,625 UDIS
- **TOTAL Payment** = 2’273,216 UDIS

\[
\text{TOTAL Payment} \times 3.318374 \text{ UDIS (on 11/15/03)} = MX$7'543,380.00
\]
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**Project’s Positive Attributes**

- Avoids FX related Risks (“Original Sin”)
- First Mover Advantage
- Low Risk Given Underlying Credit Profile, as well as IFC’s Involvement
- Market Niche with significant potential
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Observations

- Transaction is attractive from an international bank’s perspective due to the unfunded credit enhancement
- Municipal credit standing and Dexia/IFC support are the key elements
- The pricing is attractive only so long as the credit enhancements remain undrawn
- Transaction size should be larger due to complexity and documentation
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- Case Example: Design, financing and construction of a secondary school and three sport halls in Castrop-Rauxel, Germany
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Castrop-Rauxel: Project Details

- Awarding authority: City of Castrop-Rauxel
- Construction company: MBN Bau AG
- Planning/Architects: pbs Planungsbür Rohling AG
- Financing: Sparkasse Osnabrück / NORD/LB Girozentrale
- Total Cost: ca € 12 Mio
- Concession period: 30 years (plus 15 months construction)
- Financing structure: Public Forfaiting
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A Commercial Project Lender’s Perspective

Castrop-Rauxel: Project Structure

1. Turnkey construction contract

2. Receivables (Present Value)

3. Waiver of future claims („Einredeverzicht“)

Compensation (Unitary Charge)

Assignment of Compensation Payments (Forfaiting)

Repayment

Sparkasse Osnabrück

MBN

NORD/LB
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Castrop-Rauxel: Public Forfaiting

- Public Forfaiting = Sales agreement for future receivables
  - Purchase price: Compensation payments + Interest + VAT
  - Seller: MBN Bau AG
  - Obligor: city of Castrop-Rauxel
  - Buyer: NORD/LB and Savings Bank Osnabrück
- Monitoring of performance conducted by the public sector
- Attractive / achievable solution for mid cap companies:
  - streamlined transaction process, due diligence without external advisory
  - easy equity requirements
### New Models for Financing Infrastructure PPP’s: A Commercial Project Lender’s Perspective

#### Projects Completed

<table>
<thead>
<tr>
<th>Awarding authority</th>
<th>Project</th>
<th>Capex €m</th>
<th>Financial Close</th>
<th>Efficiency</th>
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<tbody>
<tr>
<td>City of Köln</td>
<td>Schools</td>
<td>34</td>
<td>Apr 05</td>
<td>10,00%</td>
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<tr>
<td>City of Monheim</td>
<td>Schools</td>
<td>24</td>
<td>Jan 04</td>
<td>15,00%</td>
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<tr>
<td>Rhein-Erft-Kreis</td>
<td>Schools</td>
<td>15</td>
<td>Feb 04</td>
<td>10,30%</td>
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<tr>
<td>Offenbach County (Los West)</td>
<td>Schools</td>
<td>100</td>
<td>Mrz 04</td>
<td>19,30%</td>
</tr>
<tr>
<td>Kreis Offenbach (Los Ost)</td>
<td>Schools</td>
<td>100</td>
<td>Nov 04</td>
<td>18,10%</td>
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<tr>
<td>City of Witten</td>
<td>Schools</td>
<td>13</td>
<td>Aug 04</td>
<td>9,30%</td>
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<tr>
<td>City of Frankfurt am Main</td>
<td>Learning centre</td>
<td>42</td>
<td>Jul 03</td>
<td>25,00%</td>
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<tr>
<td>Gütersloh district</td>
<td>Schools</td>
<td>10</td>
<td>Jun 04</td>
<td>5,00%</td>
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<tr>
<td>City of Bedburg</td>
<td>Schools</td>
<td>11</td>
<td>Mrz 05</td>
<td>10,00%</td>
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<tr>
<td>Unna district</td>
<td>Kreishaus</td>
<td>20</td>
<td>Sep 04</td>
<td>8,00%</td>
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<tr>
<td>City of Leverkusen</td>
<td>Vocational schools</td>
<td>26</td>
<td>Jun 05</td>
<td>15,00%</td>
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<tr>
<td>City of Achim</td>
<td>Schools</td>
<td>8,4</td>
<td>Aug 05</td>
<td>18,40%</td>
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<tr>
<td>Barleben borough</td>
<td>Schools</td>
<td>7</td>
<td>Feb 06</td>
<td>21,00%</td>
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<tr>
<td>City of Leimen</td>
<td>Swimming pool</td>
<td>10,8</td>
<td>Apr 05</td>
<td>20,00%</td>
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<td>City of Gladbeck</td>
<td>City hall</td>
<td>16</td>
<td>Sep 04</td>
<td>13,50%</td>
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<td>Bodensee district</td>
<td>District Office</td>
<td>11,5</td>
<td>Aug 05</td>
<td>20,00%</td>
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<td>City of Münster</td>
<td>Sports halls</td>
<td>6,5</td>
<td>Jun 04</td>
<td>15,00%</td>
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<td>State Sachsen (Chemnitz-K.)</td>
<td>Justice building</td>
<td>74</td>
<td>Sep 06</td>
<td>14,30%</td>
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</table>
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Conclusions & Outlook

- Local currency funding mechanisms need to be promoted more vigorously in Emerging Markets
- Bilateral & Multilateral Development Finance Agencies should focus on providing long-term currency and inflation hedging tools
- Ditto with sub-sovereign credit enhancements
- Very long-term financing in EM could ideally rely on the World Bank Partial Guarantee Program
- The private sector is best suited to bring efficiency and capital
PPP's in Infrastructure

THANK YOU!

Bruno Mejean, Managing Director
NORD/LB New York Branch
# Contacts

For comments or further details contact:

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penny Williams</td>
<td><a href="mailto:pwilliams4@worldbank.org">pwilliams4@worldbank.org</a></td>
</tr>
<tr>
<td>Bruno Mejean</td>
<td><a href="mailto:bruno.mejean@nordlb.com">bruno.mejean@nordlb.com</a></td>
</tr>
<tr>
<td>Cledan Mandri-Perrott</td>
<td><a href="mailto:cmandriperrott@worldbank.org">cmandriperrott@worldbank.org</a></td>
</tr>
<tr>
<td>Sabino Escobedo</td>
<td><a href="mailto:sescobedo@tagfinancialadvisors.com">sescobedo@tagfinancialadvisors.com</a></td>
</tr>
<tr>
<td>David Stiggers</td>
<td><a href="mailto:davidstiggers@comcast.net">davidstiggers@comcast.net</a></td>
</tr>
<tr>
<td>Speaker Name</td>
<td><a href="mailto:speaker@speaker.com">speaker@speaker.com</a>/org</td>
</tr>
</tbody>
</table>
Infrastructure Project Finance References

**Warnow-crossing**
First privately financed traffic project in Germany
EUR 215.8 Mio.
Lead Arranger
NORD/LB

**Niedersachsen-stadion Hannover**
Modification and operation of a soccer stadium
EUR 63.84 Mio.
Adviser / Arranger
NORD/LB

**Realschule in Castrop-Rauxel**
Construction and operation of a secondary school
EUR 12.5 Mio.
Adviser / Arranger
NORD/LB

**Lower Saxony's communities factoring**
Factoring for home advancement and land acquisition
NORD/LB

**Volkswagen Arena Wolfsburg**
Financing of a soccer stadium
EUR 51 Mio.
Arranger
NORD/LB

**Burg Madel**
Construction and operation of a prison
EUR 12.35 Mio.
Arranger
NORD/LB

**Community Harsewinkel**
Construction and operation of a ring-road
NORD/LB
Construction and operation of the "Heinrich-Böll-Foundation" in Berlin
EUR 12 Mio.
Adviser und Arranger

Arranger

Refurbishment of a nursery in Lübz

Construction and operation of an educational institution

Arranger

Welfenakademie in Braunschweig

Construction and operation of various schools

Arranger

Comprehensive school in Köln Rodenkirchen

Construction and operation of a school
EUR 47.5 Mio.
Arranger

School in Bleckede

Construction of a grammar school

Arranger

School package I in Magdeburg

Construction and operation of various schools
EUR 42 Mio.
MLA

NORD/LB

Schools in Frankfurt/Main

Refurbishment, construction and operation of 4 schools
EUR 108.5 Mio.
Arranger

NORD/LB
Infraspeed
Privately financed construction and operation of a high speed link in the Netherlands
EUR 1,178 Mio.
Lead Manager
NORD/LB

Lusoscut
Privately financed shadow toll road in Portugal
EUR 1,007 Mio.
Arranger
NORD/LB

Norscut
Privately financed shadow toll road in Portugal
EUR 723.5 Mio.
Arranger
NORD/LB

Europpass
Electrical tolling system for trucks on motorways in Austria
EUR 215.8 Mio.
Lead Arranger
NORD/LB

A2-section Berlin - Warsaw
Privately financed toll road project in Poland
EUR 882 Mio.
Co-Arranger
NORD/LB

Scutvias
Privately financed road construction project in Portugal
EUR 847.6 Mio.
Co-Arranger
NORD/LB

Glasgow Independent Schools
Refurbishment and maintenance of all secondary schools in Glasgow
EUR 882 Mio.
Co-Arranger
NORD/LB

Glasgow Schools
Refurbishment and maintenance of all secondary schools in Glasgow
GBP 339 Mio.
Club Participant
NORD/LB

Airport Prague
Construction of North terminal 2
CZK 10 bn.
Arranger
NORD/LB
Airport Warsaw
Extension of terminal 2
USD 215 Mio.
Co-Arranger

Privately financed road construction project in Norway
NOK 1.31 bn.
Senior Lead Manager

Phyrn-Corridor
Zagreb-Macelj
Privately financed toll motorway in Croatia
Lead Arranger / Underwriter

Privately financed toll motorway in Croatia
GBP 750 Mio.
Arranger

Premier Prisons
Design, construction and management of 5 juvenile detention centres in Great Britain
GBP 217 Mio.
Lead Manager

Privately financed toll motorway in France
EUR 940.5 Mio.
Lead Arranger

Construction and operation of two primary and secondary schools
EUR 141 Mio.
Arranger
Construction and operation of a waste disposal plant for 4 urban districts in the East of London
EUR 195 Mio.
Arranger

Hull Maternity Hospital
Construction and operation of a hospital in Hull
EUR 34 Mio.
Arranger

Leeds City Council
Construction and operation of 6 schools
EUR 178 Mio.
Arranger

Kent Education Partnership
Construction and operation of 6 secondary schools
EUR 159 Mio.
Arranger

Schools East-Ayrshire
Construction and operation of two primary and secondary schools
EUR 139 Mio.
Arranger

Metronet Tubelines
Refurbishment and part operation of the London Underground Infrastructure (3 projects)
EUR 20.8 bn.
Arranger

Kent Enviropower
Construction and operation of a waste-fuelled power station
EUR 251 Mio.
Arranger

Construction and operation of two primary and secondary schools
EUR 139 Mio.
Arranger

Construction and operation of 8 primary schools in Scotland
EUR 54 Mio.
Arranger
Construction and operation of a waste disposal in Dumfries & Galloway
EUR 53 Mio.
MLA

Paradigm Secure Communications
Construction and operation of a satellite communication system for the MoD/UK
EUR 1.94 bn.
Arranger

White Horse Education Partnership
Construction and operation of 3 schools in Wiltshire
EUR 62 Mio.
Arranger

Herning Kommune
Construction and operation of a primary and a grammar school
Viibjerg / DK
EUR 18 Mio.
Investor, adviser and arranger

Refurbishment and operation of military barracks
Munich / Germany
EUR 60 Mio.
Arranger

Leeds Independent Living Accommodation
Construction and operation of housing in 30 locations for Leeds
EUR tbc Mio.
Arranger

EUR 351 Mio.
Arranger

Construction and operation of 51 primary and secondary schools

Construction and operation of the traffic information system in England
EUR 103 Mio.
Arranger

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NORD/LB

NORD/LB

NORD/LB

NORD/LB

NORD/LB

NORD/LB
Financing of a port portfolio
USA and Latin America
USD 2,400 Mio.
Arranger

Construction and operation of the Sea to Sky Highway
Vancouver
CAD 498 Mio.
Lender

Financing of a port portfolio
Montreal
CAD 372 Mio.
Lender

Financing of a port portfolio
Montréal
USD 625 Mio.
Lender

Financing of a port portfolio
USA
USD 955 Mio.
Sub-Underwriter

Construction and operation of Autoroute 25
Montréal
CAD 270 Mio.
Lender

Financing of a port portfolio
USA
USD 1,880 Mio.
Lender

Construction and operation of a light rail connection
British Columbia
CAD 600 Mio.
Co-Lead-Arranger & Swap Provider

Ports America, Inc.
Financing of a port portfolio
USA
USD 955 Mio.
Sub-Underwriter

Montreal Gateway Terminals Finco Corp.

NORD/LB

NORD/LB

NORD/LB

NORD/LB

NORD/LB

NORD/LB
Financing of a motorway
Sydney
AUD 1.8 bn.
Lead Manager

Construction of a Petro-terminal
Singapore
SGD 20 Mio.
Arranger

Financing of a motorway
Brisbane
AUD 580 Mio.
Lead Manager

William R. Bennett
Bridge
Construction of Okanagan Lake Bridge Project
British Columbia
CAD 145 Mio.
Co-Financial Advisor
PPPs in Infrastructure

THANK YOU!

Bruno Mejean, Managing Director
NORD/LB New York Branch