Goodbody CORPORATE FINANCE

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When credit dries up !

The Credit Crisis and Alternatives to Project Finance

24 April 2009

Agenda

1. Funding Environment
2. The Banking Model is Broken
3. Supra - Nationals – Can they help ?
4. The Great Pension Meltdown
5. Getting the Project Done – Back to the 1970’s ?
6. Conclusions

Section 1

The Funding Environment

Utilities have outperformed in falling markets

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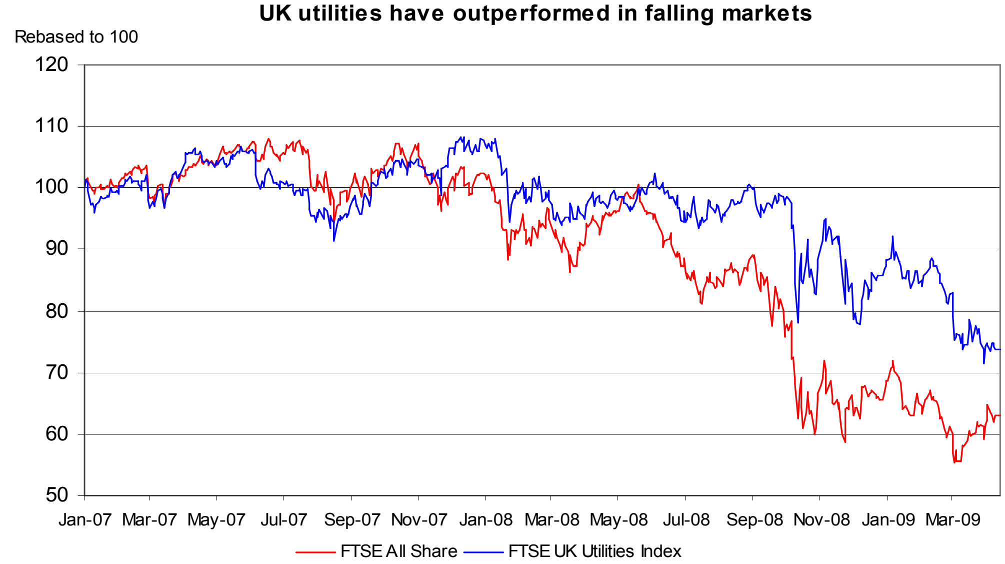
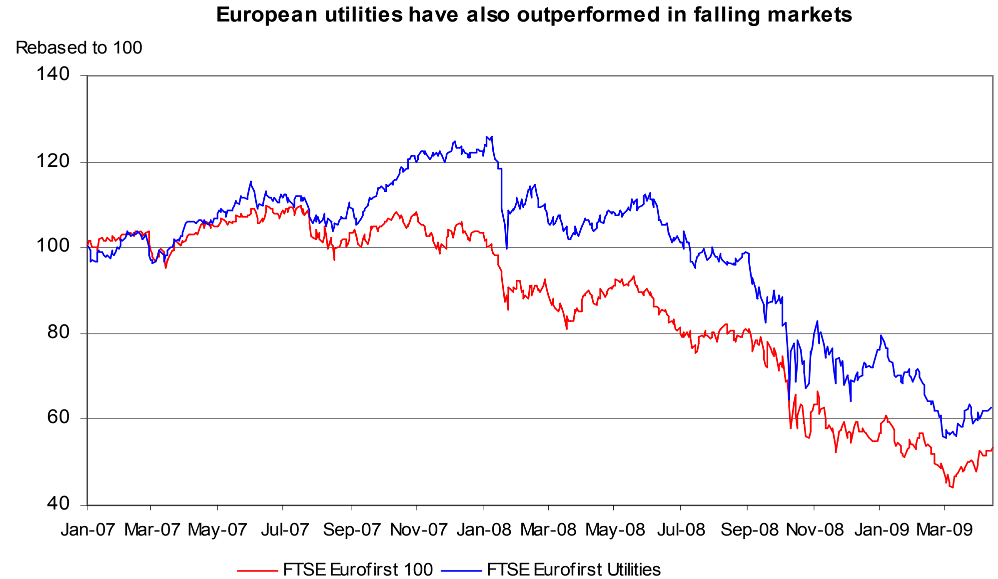
- Utilities offer a relative safe haven for investors amid the recent market turmoil
  - UK and European utility equity indices have outperformed their respective general market indices

- However, there have been sector downgrades due to:
  - General negative economic environment
  - Falling wholesale electricity prices
  - Falling commodity prices
  - Higher funding costs
  - Potential liquidity risks if debt cannot be raised

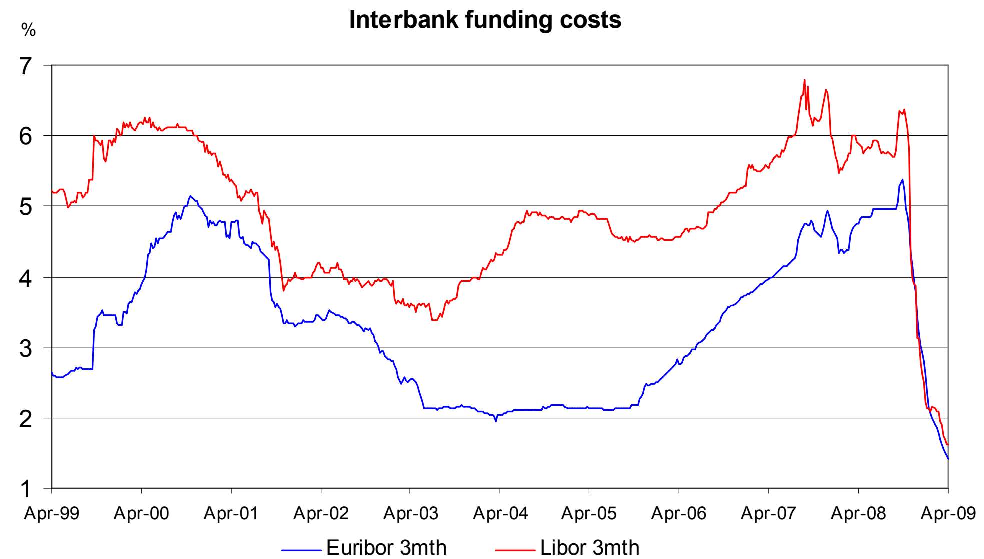




Current funding environment is challenging

Ireland

- The current funding environment is challenging, even for utilities who have traditionally enjoyed relatively easy access to capital
- Interbank funding costs have fallen to record lows but liquidity in the market is scarce
- Confidence is coming back into bond markets, but they remain expensive
- c€380bn of corporate bond issues in Europe in Q1 2009, more than double that of same period in 2008
  - Pent up demand from second half of 2008
  - Lack of alternatives with other lending and equity markets closed
  - Record yields over government debt
- Investors are more selective about sector access, with telecoms, utilities (ex wind) and pharmaceuticals viewed as "safe havens"



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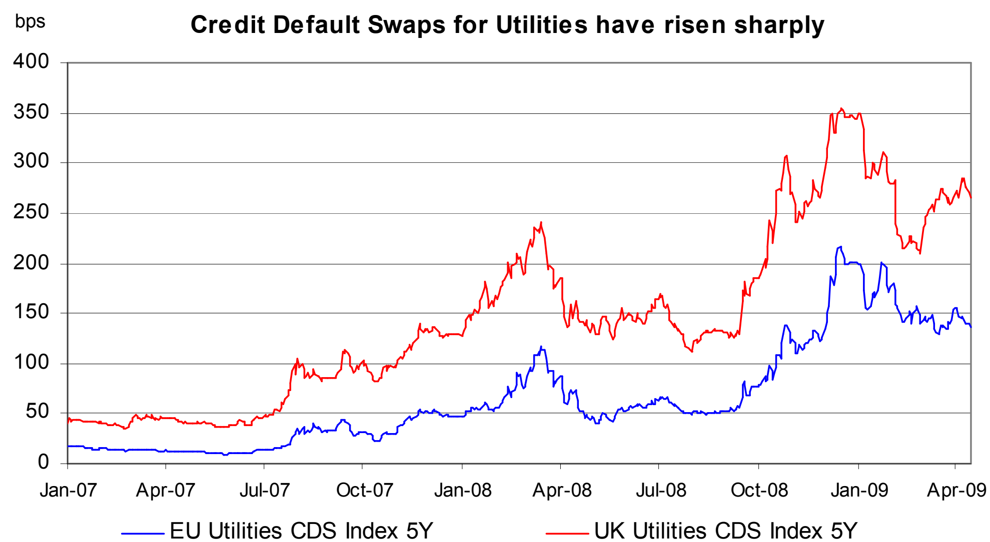

Source: Datastream

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Utilities are raising debt - at a cost

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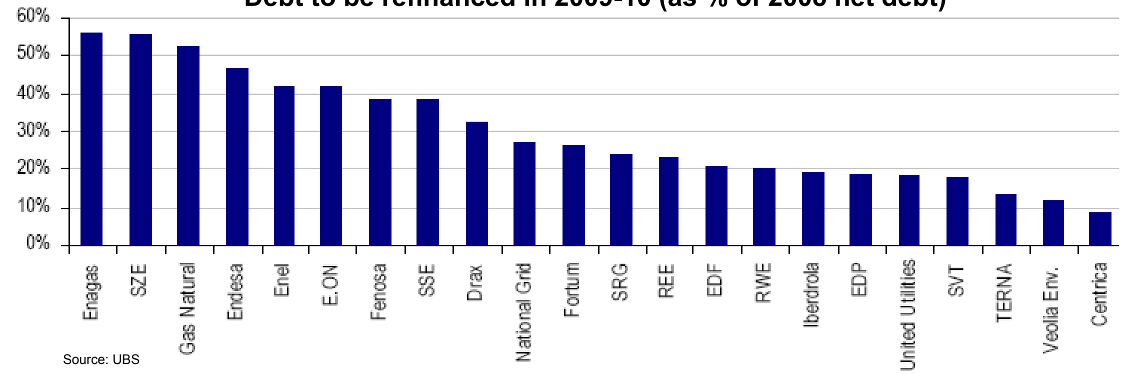
- European utilities will have to raise c€120bn of debt during 2009-10
- Utilities have been able to successfully raise money since bond markets reopened in October 2008
  - Approx €53bn raised in last 6 months at average spread of 254bps over mid-swaps
- Raising debt is coming at a cost
  - E.On raised €1.75bn of 5yr bonds at a 195bps spread in January 2009, compared to 45bps on €750m 3yr bonds raised in August 2008

Debt to be refinanced in 2009-10 (as % of 2008 net debt)



Source: UBS

Recent European utility bond issues

Date	Corporate	Amount	Maturity	Coupon	Rate*	Moody	S&P
13-Jan-09	National Grid	€0.5bn	5years	na	ms+365	Baa1	BBB+
13-Jan-09	GDF Suez	€1bn	12years	6.375%	ms+255	Aa3	A
14-Jan-09	E.On	£0.7bn	30years	6.750%	ms+304	A2	A
16-Jan-09	EDF	€2bn	6years	5.125%	ms+205	Aa3	A+
16-Jan-09	EDF	€2bn	12years	6.250%	ms+355	Aa3	A+
20-Jan-09	Iberdrola	£0.5bn	15years	na	ms+337	A3	A-
21-Jan-09	E.On	€1.75bn	5years	4.875%	ms+195	A2	A
22-Jan-09	EDF	$1.25bn	5years	5.500%	ms+328	Aa1	AA-
22-Jan-09	EDF	$2.0bn	10years	6.500%	ms+364	Aa2	AA-
22-Jan-09	EDF	$1.75bn	20years	6.950%	ms+386	Aa3	AA-
23-Jan-09	SSE	£0.7bn	5years	5.750%	ms+276	A2	A
28-Jan-09	National Grid	£0.4bn	5years	6.125%	ms+308	Baa1	BBB+
03-Feb-09	RWE	€2bn	6years	5.000%	ms+190	A2	A-
03-Feb-09	RWE	€1bn	12years	6.500%	ms+255	A2	A-
10-Feb-09	EDP	€1bn	5years	5.500%	s	A2	A-
11-Feb-09	GDF Suez	£0.7bn	12years	na	ms+186	Aa3	A
20-Feb-09	Iberdrola	€1.5bn	5years	na	ms+220	A3	A-
23-Feb-09	GDF Suez	€0.75bn	6years	5.000%	na	na	na
27-Feb-09	Centrica	£0.4bn	13years	na	ms+235	A3	A
05-Mar-09	Vattenfall	€1.1bn	7years	5.250%	ms+235	A2	A-
05-Mar-09	Vattenfall	€1.1bn	12years	6.250%	ms+265	A2	A-
17-Mar-09	Fortum	€0.75bn	5years	4.625%	ms+195	A2	A
17-Mar-09	Fortum	€0.75bn	10years	6.000%	ms+365	A2	A
17-Mar-09	E.ON	€0.75bn	5years	4.125%	ms+155	A2	A

* Reported spread at time of issuance (g=spread vs treasuries, ms = spread vs mid-swaps). ** Spread over mid-swaps at time of issuance

Utilities' capital spending – a mountain to climb

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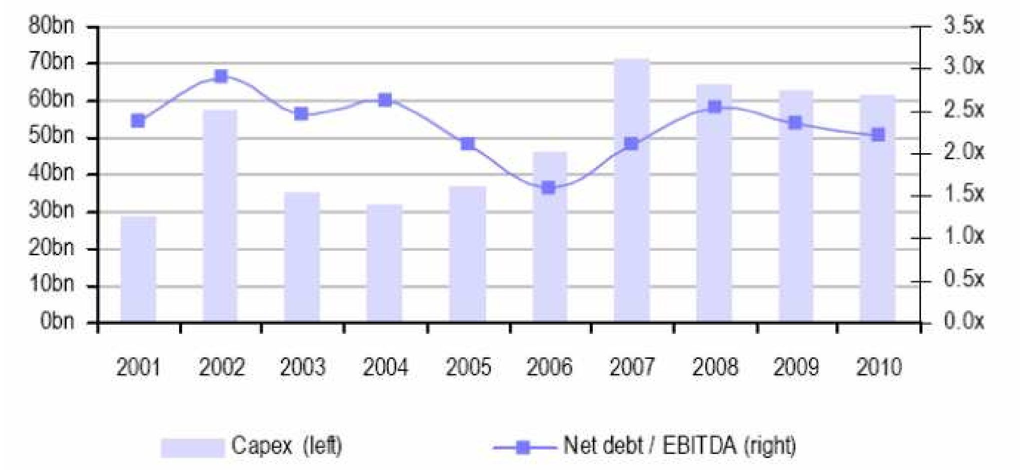
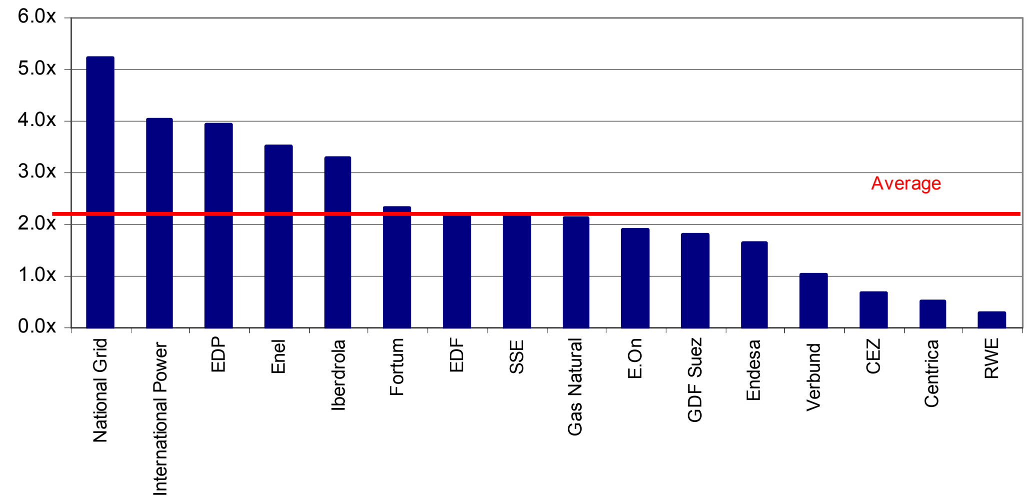
- Capital spending increased in the last 5 years - rising commodity prices and cheap and abundant debt all helped
- Average Net Debt/EBITDA ratio of European utilities has fallen from a peak of 3.0x in 2002 to 2.3x in 2008
  - More acquisitive companies have ratios > 3x
- Utilities are having to reassess their financing plans and face four difficult choices:
  - Reduce dividends – not favoured by investors
  - Raise capital – not favoured by markets / companies
  - Reduce Capex. – will certainly be part of solution
  - Raise Debt – difficult – will also be part of solution
- Most utilities will moderate their capex plans
  - Some of the more highly leveraged have already begun to do so, e.g. Enel intends to cut capex by 25%
  - On that basis, analysts currently forecast utilities to maintain average Net Debt/EBITDA at c2x out to 2010

European Utilities: Net debt/EBITDA and Capex (€bn) evolution



Source: UBS

European utilities forecast Net Debt to EBITDA ratios in 2008



Source: Analysts' Reports, Bloomberg

What this means for utilities

The current environment creates both challenges and opportunities

- Utilities will have to work hard to raise finance for new projects and refinance existing debt
  - Large regulated utilities are best placed to access the necessary capital to develop renewables and network/generation infrastructure
- Future funding costs will be much higher
  - Spreads are currently 200-400bps, even for high quality utilities who paid as little as 20bps in better times
- M&A financing will be more challenging
  - EdF's £12.5bn acquisition of British Energy last year illustrates the problem
    - EdF is 85% owned by the French government
    - £11bn financing was a mix of short term (1-3yr) facilities priced at Libor+110 to 120bps – compared to Libor+20 to 40bps 12mths previous
- Industry consolidation may still accelerate over the next 5 years
  - Driven by convergence of European energy markets, the need for investment in energy infrastructure and the re-emergence of vertical integration as the business model of choice for utilities
  - The larger and less leveraged players will have an advantage over their competitors in terms of greater access to capital and lower funding costs, would be expected to drive this consolidation
  - Distress situations will offer opportunities

Availability of finance is key – it will be necessary to be creative

Some distance to go on 20 – 20 – 20

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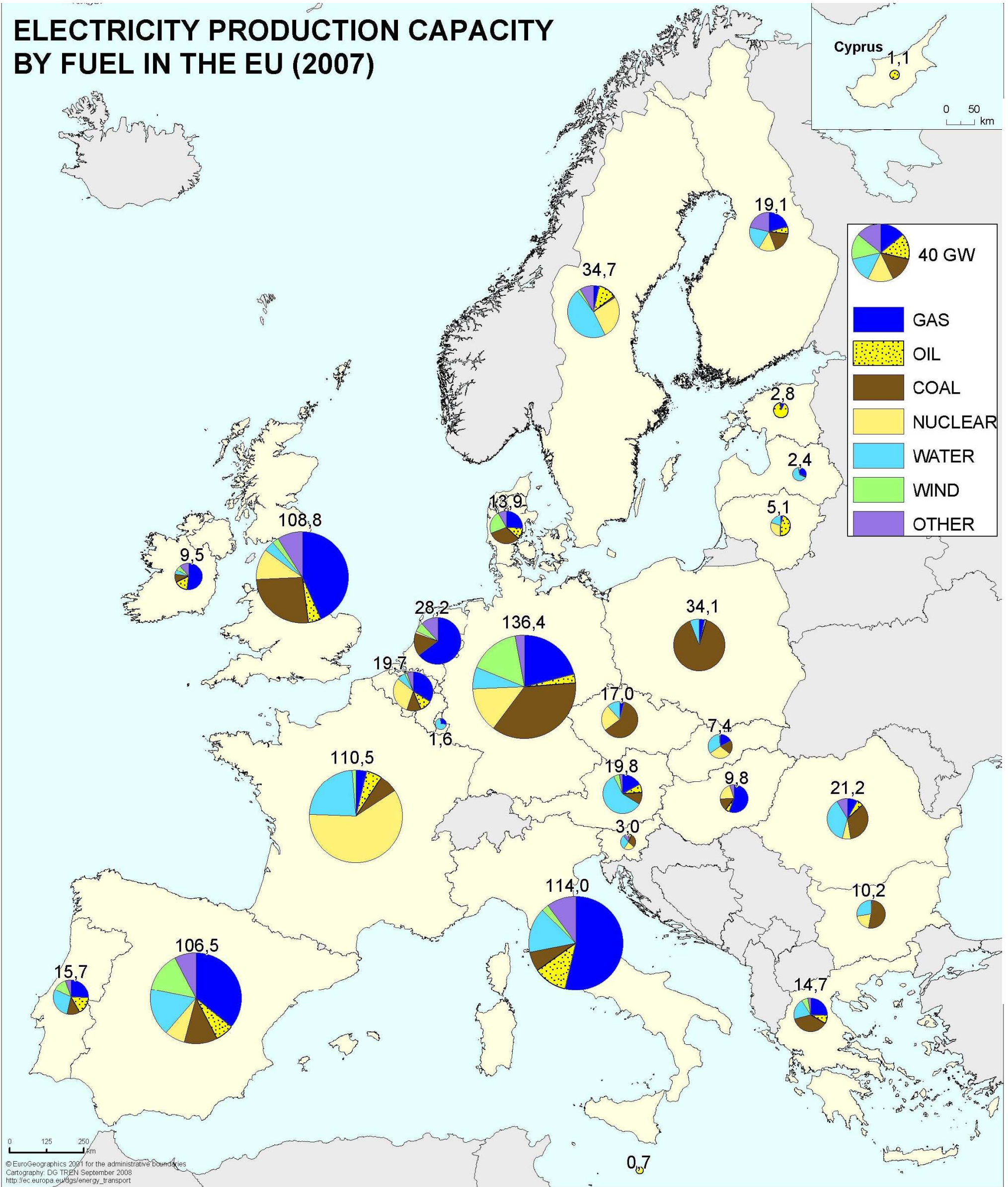
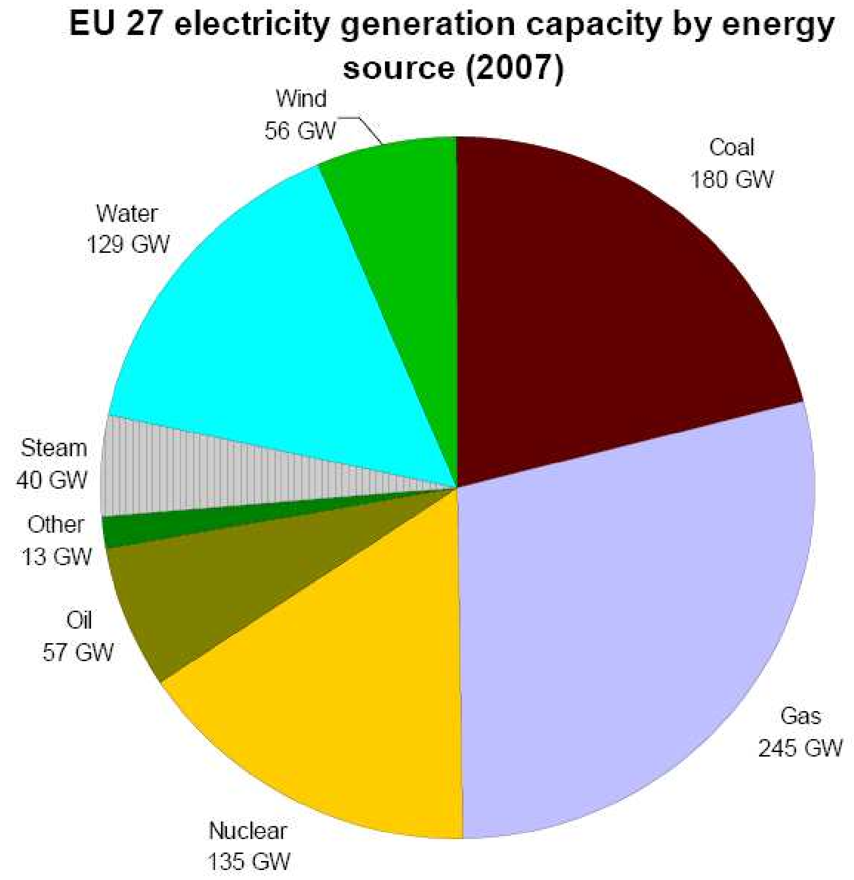
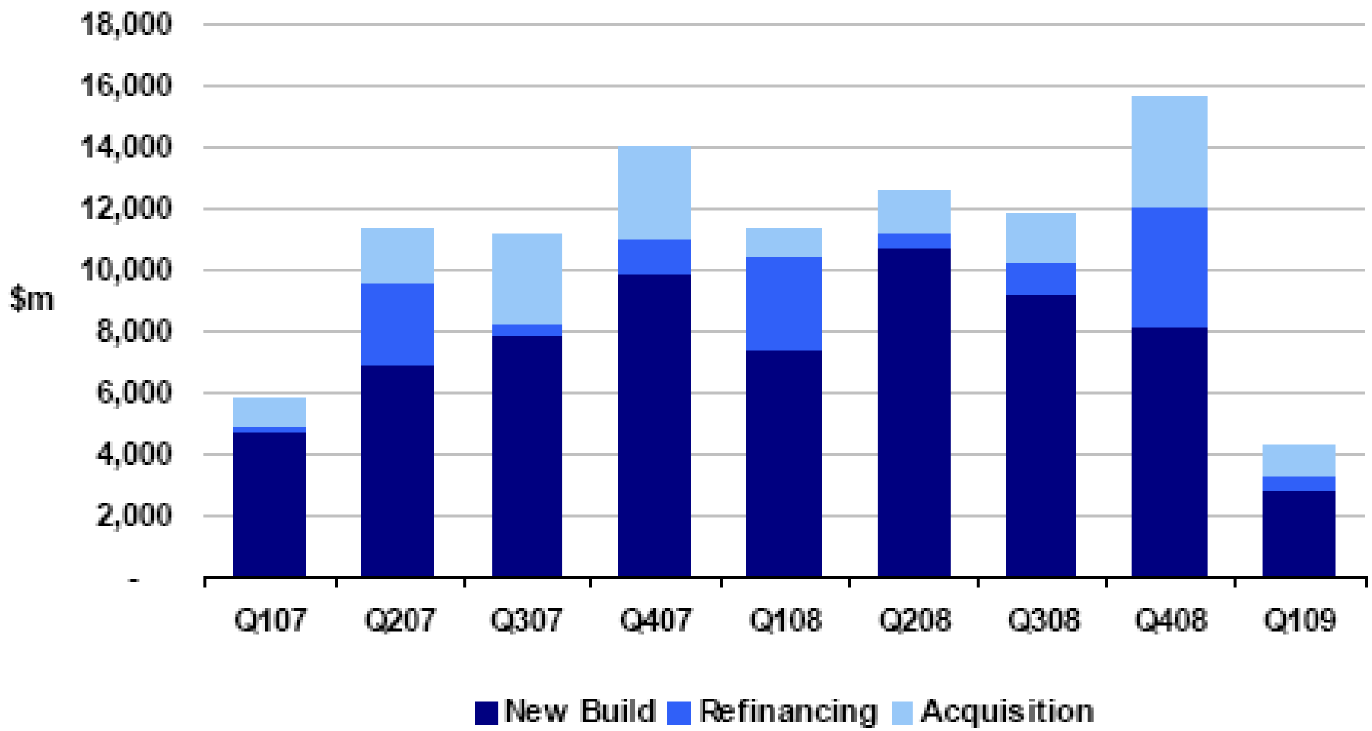




Number and value of deals in decline

Wind asset financing down >40% YoY



Source: New Energy Finance

Section 2

The Banking Model is Broken

Banking was a simple business

- Banks used to perform two useful functions
  - Take Credit Risk (typically expressed as the margin over Euribor / Libor)
  - Intermediate between Depositors and Borrowers (Borrow Short – Lend Long, typically expressed in terms of the bid / offer spread on deposits and the margin on swaps)

- Credit Risk
  - Was probably under priced for a number of years – when spreads fell below 1%
  - Is now probably being over priced – when spreads are at least 2.5% and many over 3.5%

- Banks no longer have the confidence of:
  - Each other – Interbank lending is severely curtailed, post Lehman
  - Depositors – most require Government support

- Result is that Banks
  - Can no longer have confidence that they can source long-term deposits / Interbank deposits
  - May be able to raise 5 to 7 year finance at most
  - Will not lend beyond the period they can raise money for
  - Are charging a large premium for both Liquidity and Credit

Most banks are now closed for new Project Finance and long-term utility business

What Project Finance Used to Look Like

- Term – there was considerable "Deal Creep"
  - Contract Duration – less 2 years – e.g. typically 13 years financing on a 15 year contract
  - Contract Duration then became the norm – 15 Years
  - Contract Duration + 2 Years (Tail) – 17 Years
  - Merchant Risk – We don't really need a contract at all !
- Margin and risk
  - Assume a typical 1% Margin and a 50% Cost to Income ratio
  - If one transaction in a hundred defaults, recovery must exceed 50% for the bank to breakeven
  - If two transactions in a hundred default, recovery must exceed 75% for the bank to breakeven
  - Credit Risk at c250bps for Utilities is now probably overpriced – (Projects cost 100-200bp more)
- Debt to Equity – where the real "Deal Creep" occurred
  - Started at 75% to 80% Debt
  - Moved to 90%
  - Moved to 1% Equity and 9% Junior Debt on some PFI / PPP deals
  - Sometimes the same bank did Senior Debt and Junior Debt (99%)

Banks forgot what the model was about – they and their customers are now paying the price

Projects now face a number of problems

- Term
  - Banks can only source money of 5-7 years duration in the current market
  - There are “Mini-Perm” solutions

- Refinancing Risk
  - Hard and Soft Mini-Perms
  - Who bears the risk of refinance?
  - Trade-off between default risk and liquidity risk – treated differently by different jurisdictions

- Supra-Nationals may provide an alternative
  - Each has a source of longer-term money (EIB / KFW / Nordic Investment Bank)
  - Alternatively they can provide backstop refinance at the end of the mini-perm removing the refinancing risk

How does this alternative to Bank funding work ?

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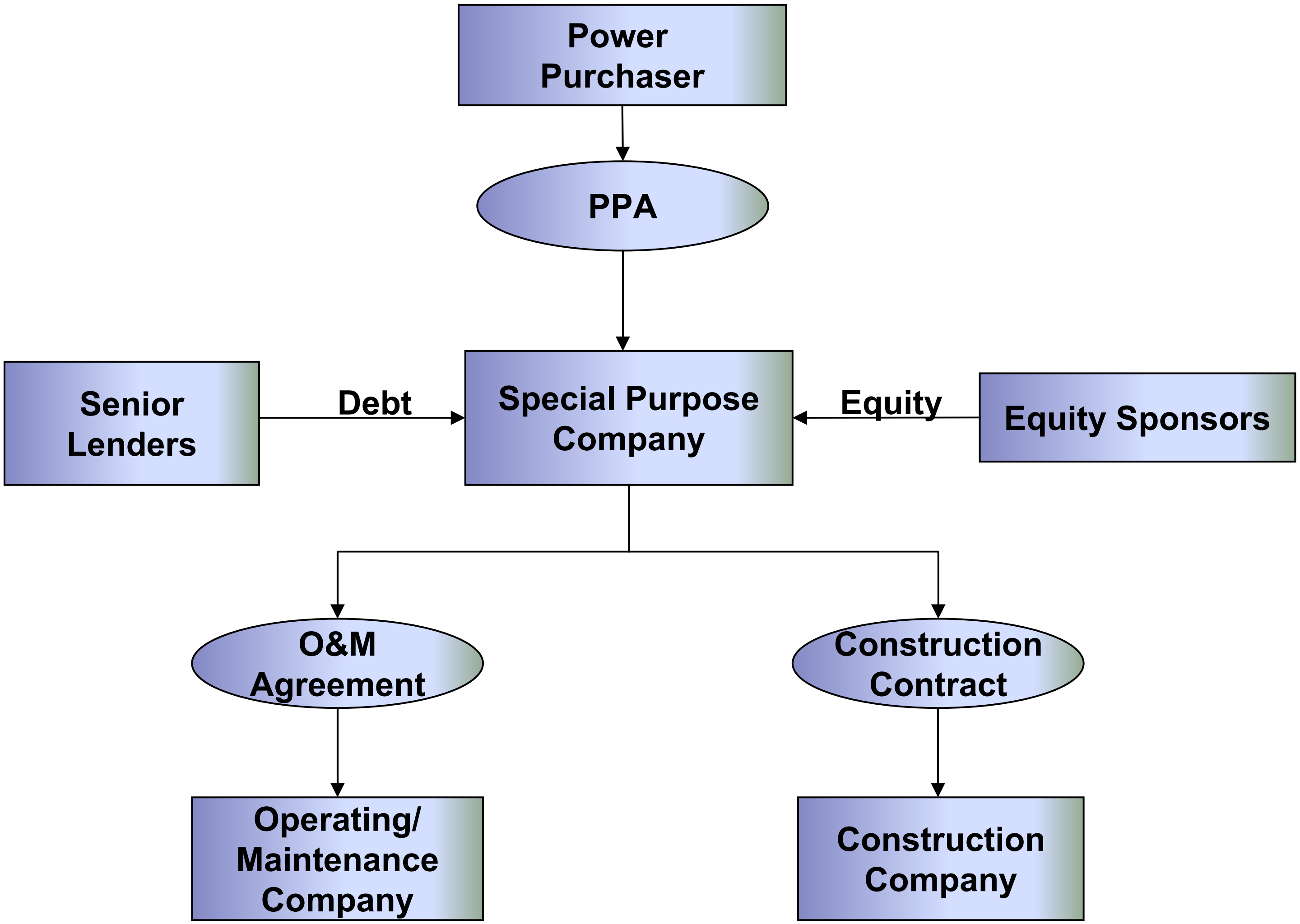
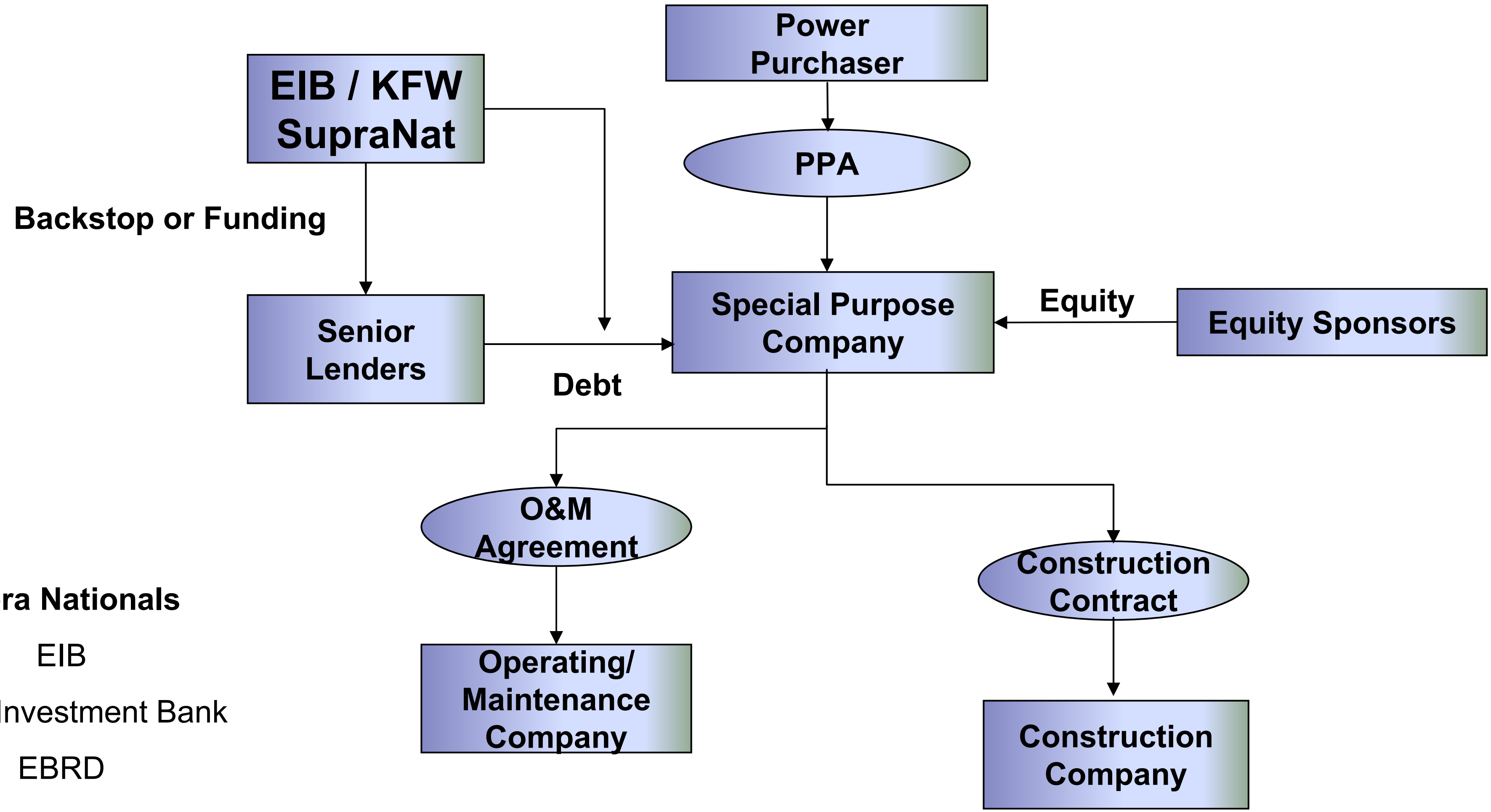
Section 3

Supra-Nationals – How they can help

Basic PF Structure



Rescue Arrives ?



Supra Nationals

EIB

Nordic Investment Bank

EBRD

IADB

IFC

Look at the arbitrage opportunity

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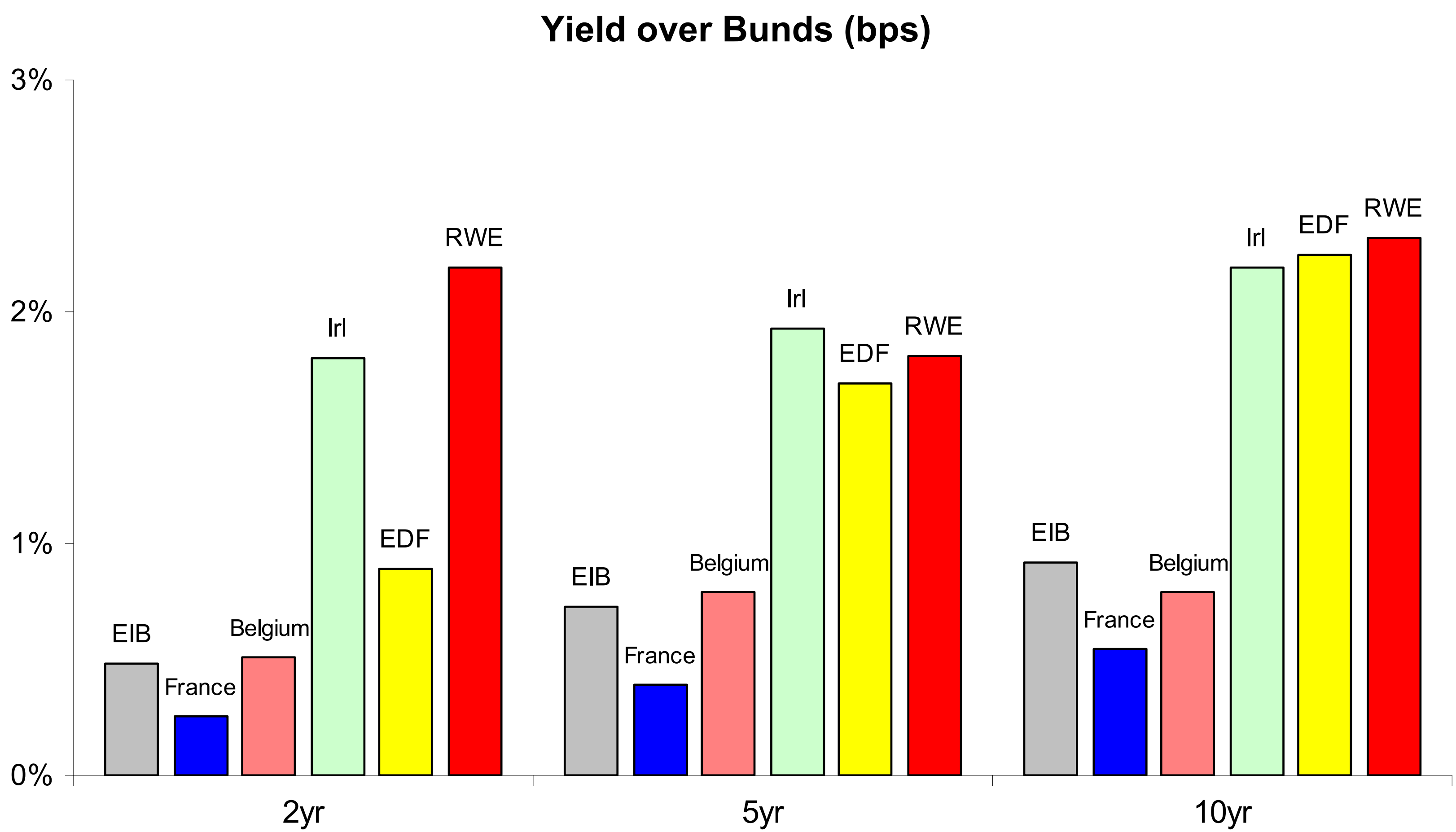

- There are potential arbitrage opportunities from availability of EIB and Supra-National funding
- Supra-Nationals may fund directly or fund banks to take the risk

But where do the EIB, KFW, Nordic Investment Bank get their money ?

In the Bond Market

- **Bond Markets**
  - Biggest source of funding lies in Pension Funds and Mutual Funds
  - There are other sources
    - Property Funds
    - Hedge Funds
    - Cash Funds
- **Will the pension funds be content just to give their money to the EIB and others at yields at or below Government Securities ?**

Section 4

The Great Pension Meltdown

A Slight Detour – The Great Pension Meltdown

Ireland

- The lazy mans guide to investing
  - "Equities have had greater returns than any other asset class in the long-term"
  - Diversification will spread risk both by geography, currency and asset class
  - Professional investors will only invest in liquid assets
- What Happened ?
  - LTCM – the first lesson in liquidity – Bonds are not liquid if you control a big portion of the market
  - Property Funds – the second lesson in liquidity – No one wants to buy in a falling market
  - Hedge Funds – the third lesson in liquidity - Equities are not liquid in a rapidly falling market
  - Globalisation may mean the death of diversification by geography and currency
- The new paradigm ?
  - Pension Funds may no longer be able (or allowed by Government?) to invest largely in equities
  - There will be a much greater emphasis on fixed income
  - The emphasis on "Liquidity" was overdone – it vaporises in a meltdown
  - Very high quality transactions can safely be held to maturity

Will Pension Funds provide funding for Supra-Nationals in sufficient size to meet the PF shortfall ?

What does this do for Pension Funds current predicament ? … Not a lot

Where will Pension Funds find Credit Quality?

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- In the First Instance
  - Sovereigns
  - Supra-Nationals

- Will Pension Funds
  - Continue to lend to Supra-Nationals on the basis that they know better ?
  - Continue to rely on discredited rating agencies

Or

- Will Pension Funds chase yield directly ?
  - Can they afford to delegate this to Supranationals or Rating Agencies?
  - Will liquidity compensate them for the much lower yields – Hardly based on previous experience

There is an argument that Pension Funds must chase yield in order to restore individual funds

This is of great concern to those depending on the funds for their pensions

The Infrastructure Fund announced in the Irish Budget uses this concept

Section 5

Back to the 1970's ?

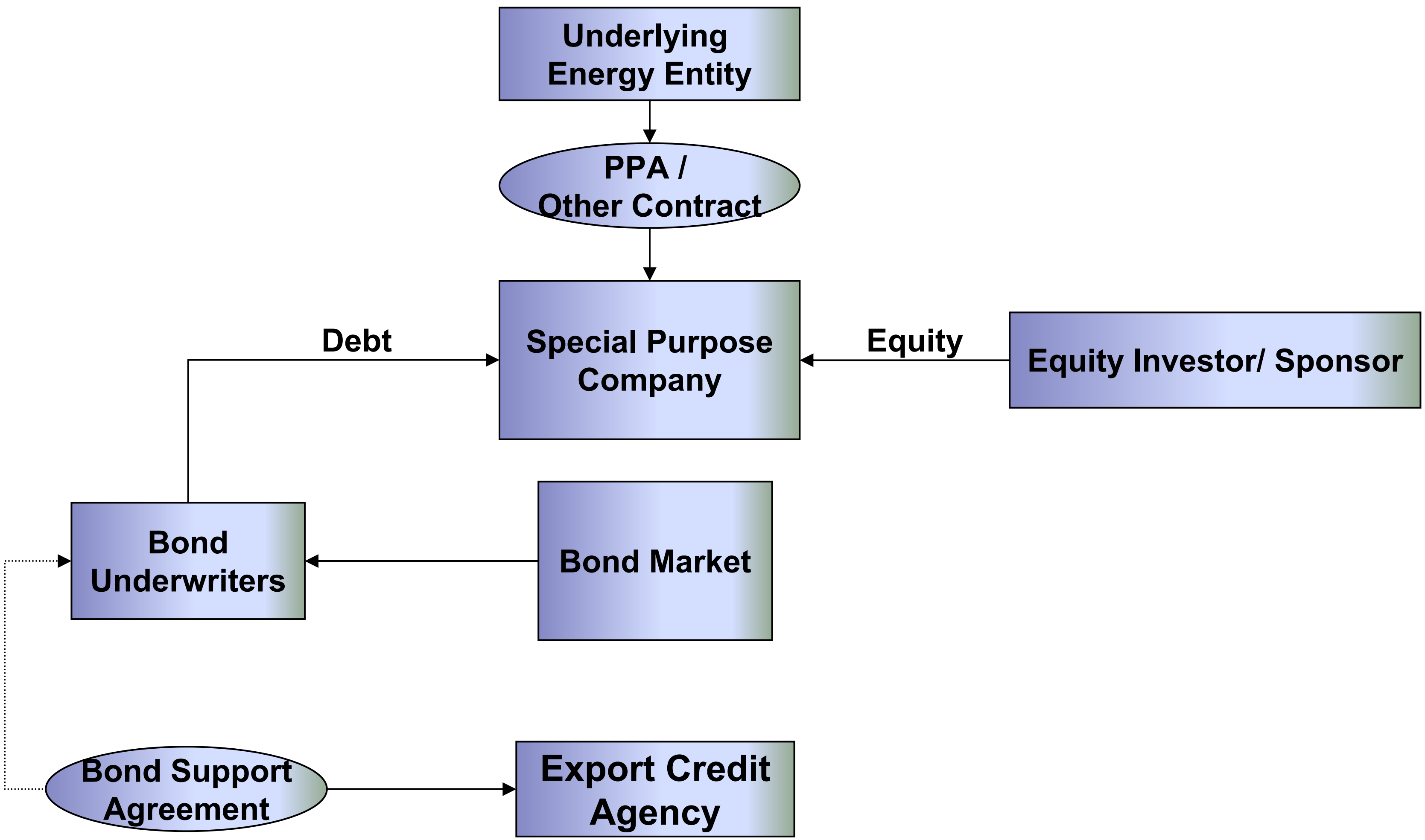
A Reminder for the over 50's

- **Equipment used to come with Finance**
  - When equipment suppliers bid to a utility or project they were asked to bid finance
  - This disappeared in the 1980's with utilities
  - It persisted to a large extent into the 1990's with Aircraft - some deals are still being done (Ryanair and EXIM finance)
  - It continued in the Telecom Sector until the late 1990's

- **The Large Vendor Finance Providers**
  - GE Capital – The big daddy of them all
  - McDonnell Douglas Finance Corp
  - GMAC
  - ABB Financial Services
  - Siemens Financial Services
  - Japanese Trading Houses / JEXIM

- **When the Utility was not strong enough**
  - Export Credit Agencies stepped in
  - Provided support to Bonds, Banks and others
  - Hermes, COFACE, ECGD, EXIM, JEXIM, etc.

A New Bond Structure for Project Finance ?



The Future ?

- Utilities require Capex
  - Equipment has to be replaced
  - Regulators want certain investments
  - Governments want investment in networks to facilitate Wind / Other Green technologies

- Vendors require Sales
  - Wholesale reductions in equipment purchase will elicit a response from Manufacturers / Governments
  - Think of the importance of GE to the US, ABB to Switzerland, Alsthom to France, Siemens to Germany, Mitsubishi to Japan …

- There will be a need for debt
  - Unless Banks start lending again soon – an alternative will be found
  - This is likely to be provided by the Bond Market
  - The role of Credit Support will be key

What does it look like ?

- Traditional Export Credit Agency Credit Support may not work
  - Banks can't raise the money to lend for the required tenors
  - Bond Market participants need higher yields to restore pension funds

- Support will have to change
  - Risk sharing between the Bond Market and Sovereigns would prove attractive
  - A limit on losses to a pre-agreed level – say 10% - would go a long way
  - A right for the ECA to step in if the Bond Market exits
  - The risk would have to be structured with equity of approximately 20%

- In many ways this is similar to some early PFI / PPP deals
  - Compensation on Termination of 90% to 95%
  - Strong underlying Transactions with 10% to 20% equity
  - Strong underlying credit entity paying the bills

Conclusions

- The Banking Crisis will not last forever
  - The toxic assets will have to be resolved first
  - It may take some time
- In the meantime
  - Energy equipment manufacturers have to stay in business
  - Utilities have to continue to spend money
  - Equipment manufacturers have the support of their Governments
- There are unconventional financing solutions available
  - Supra-nationals
  - Export Credit Agencies
  - Vendor Finance
  - Bonds
  - Combinations of the above
- These unconventional financing solutions have been used before
  - Before easy credit and in difficult countries
  - Will be used again if the banking problems are not resolved
  - The focus will be on utilities initially. A “trickle down” to specialist developers will likely follow