

Funding wind power: the view from a financial institution

TPWind

Nicolas Gourvitch - 24 September 2013



GGEB - A specialist advisory boutique focused on renewable energy

At the heart of the energy transition

Deep roots in renewable energy finance

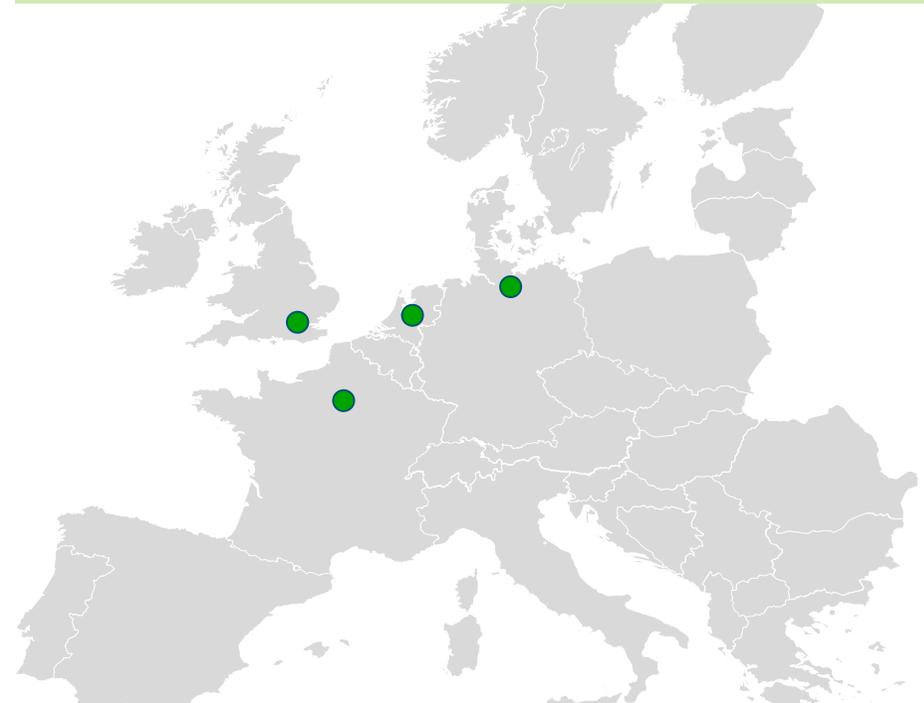
- Launched by experienced finance specialists with a **strong and proven track record** in the renewable energy sector (over 30 transactions in the renewable energy sector closed in the 5 years prior to the creation of the company)
- Currently with more than 20 professionals with offices in **Utrecht (Netherlands), Paris (France), London (UK) and Hamburg (Germany)**
- Built on a multi-disciplinary skill set including **project & structured finance, M&A, legal & tax expertise**
- We have **successfully closed** four utility-scale non recourse financings for offshore wind projects since the company's creation in 2010

An ambition to provide high quality, specialised advisory services

- Focus on projects where we can **actually add value**
- We include sector-specific tasks in our scope in addition to traditional debt or equity advisory (such as **project contracting services** for offshore wind)
- Priority given to a **limited number of clients**, based on long term relationships and a shared approach to transactions & risks
- Priority on **getting the deal done!**

Green Giraffe Energy Bankers follows a simple strategy:

- Stick to our core competences and markets
- Focus on assignments where we know we can deliver results
- Work with people and in markets we believe in



We have an unparalleled track record in successfully closing deals for our clients

GGEB - An extensive track record over the past 4 years

Completed advisory missions for over 4,000 MW of proposed capacity

Bankability evaluation of a 10% stake in the Gwynt y Môr offshore wind farm

576 MW



UK
2010

Advisor to C-Power to raise project finance debt

325 MW



Belgium
2010

Acquisition of a stake in an offshore wind farm

Undisclosed



North America
2011

Tendering strategy of turbine manufacturer on offshore wind project

Undisclosed



Europe
2011

Bid for a 49% stake in the Gunfleet Sands offshore wind farm

172 MW



Ampère Equity Fund

UK
2011

Advisor to WindMW to raise project finance debt

288 MW



The Blackstone Group®

Germany
2011

Advisor to Highland in the acquisition of the Deutsche Bucht project

210 MW

Highland Group Holdings

Germany
2012

Non-recourse financing of 25% stake in Walney offshore wind farm

367 MW



UK
2012

Financial advisory services - offshore wind

Undisclosed



US
2012

Financial advisory services – state waters offshore wind project

25 MW



US
2012

Advisor to Northwind to raise project finance debt

216 MW



Belgium
2012

Evaluation of a stake in the Belwind offshore wind farm

165 MW



Belgium
2012

Financial advisory services – French offshore wind tender

1,428 MW



DONG energy

France
2012

Equity advisory for the Deutsche Bucht project

210 MW

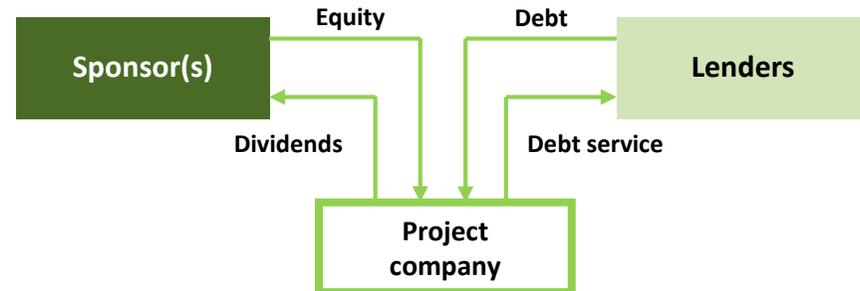
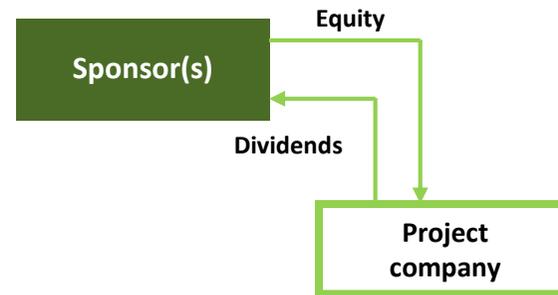
Highland Group Holdings

Germany
Ongoing

Introduction – How projects are financed

“Balance sheet” (equity) vs “non recourse” (debt)

- **Large projects are typically developed through a stand alone project company:**
 - Owned by the project investors
 - With its own revenues & balance sheet and thus the ability to raise debt on its own merits
- **There are only two discrete sources of funding:**
 - By the owners (directly via equity or shareholder loans, or indirectly via guarantees)
 - By banks without recourse to the equity investors – this is “project finance”
- **The way a project is funded will have a material impact on how it deals with contractors.**
 - In a project finance deal, you need to deal with the banks’ requirements!
 - Tax, accounting, consolidation and rating issues



The equity market

Typical investment strategies

- **The pure developer**
 - Developers focus on the initial permitting phase and sell the project before FID/FC
 - Typically low cost, time intensive work (identifying sites, garnering local support and negotiating permits)
 - In offshore wind this already involves substantial costs (geotechnical studies)
- **The utility model – from development to operations**
 - Utilities are involved throughout the value chain, from development to operations and keep full control (and access to the MWh)
 - They can take the permitting risk but will often acquire projects once they are permitted
 - Mostly interested in large assets, so were late in renewables (except offshore wind), acquiring existing assets or companies
 - Now in divestment mode, except for selective sub-sectors or countries
- **The IPP model – with project finance**
 - Typically focus on development risk and construction risk, some also stay in operations
 - Such projects are almost always leveraged, both to raise the necessary funds and to increase returns
- **Passive minority investments**
 - Minority stake behind a utility or developer which remains in control
 - Construction risk can be taken in some sectors (onshore wind, solar PV), but focus is on long term operational assets

The equity market – main players

Investors and appetite for risk: potential buyers for an offshore wind project

Investor	Permitting	Development	Construction	Operations	Notes	PF?
Utility	Yes	Yes	Yes	Yes	A proven solution – but requires good cooperation to manage projects jointly as few utilities are willing to take passive stakes for now. Many of them are “full”	Unlikely
IPP	Yes	Yes	Yes	Yes	Not many active yet in offshore wind, but several have shown intention to enter market. No construction risk taken by traditional large IPPs yet (though some are actively considering it)	Yes
Private equity	Some	Some	Some	Yes	Require high returns, not typically available in the sector without (i) involvement in development phase and/or (ii) aggressive assumptions about long term performance. Blackstone has shown the way. Control and exit are issues	Yes
Municipal utility	No	Maybe	Some	Yes	Regional utilities (Stadtwerke) have small but strong balance sheets that enable them to act as part owners in the sector. Decision process is slow and risk avoidance requirements can be stringent. Conversely, required IRRs are low	Probably
Sovereign wealth funds	No	Maybe	Some	Yes	Require simple contracting structure, long term O&M agreements and controlling partner. Masdar has taken on construction risk on London Array	Not necessarily
Infra funds	No	No	Maybe	Yes	A large universe of potentially interested parties. Most still require construction risk mitigation and long term O&M agreements	Probably
Corporations	No	No	Maybe	Yes	Looking to invest to (i) hedge power price risk (not applicable for Germany unless they have long time horizon) or (ii) strategic – marketing reasons. Happy (or even likely to require) to come as minority shareholder strategic investor	Not necessarily
Pension funds	No	No	Maybe	Yes	Generally do not like construction risk, but some have shown interest to step in at FC (and it’s now been done on Butendiek). Need long term O&M agreements	Not necessarily
Contractors	No	Maybe	Yes	Yes	Are taking stakes or providing subordinated vendor loans to secure project pipeline. Often need a clear perspective on exit after COD	Not necessarily

The equity market – new trends

Emerging strategies for offshore wind

- **Large scale consortia**
 - Specific to offshore wind: very large development zones developed by consortium of utilities
 - Strategies to “slice and dice” zones still under consideration, but different tranches have been sold to different investors
- **Passive investment with construction risk**
 - Financial investors seeking higher returns are increasingly considering taking construction risk
 - This can be done via pure equity investments or through leveraged transactions
- **Minority stake in assets with use of PF at the holdco level**
 - Allows the majority owner (usually a utility) to keep full control of the project with limited external interference
 - Provides higher returns to investors and stronger minority rights (backup from banks)
- **Refinancing of operational assets**
 - Large brownfield market expected as operating assets top 5 GW
 - Various strategies seem possible (majority/minority stakes, use of PF or not, portfolios vs single assets)

The equity market – the case of utilities

Utilities are still avoiding project finance in Europe

- **Utilities have gone toward equity solutions**
 - No need (yet) for the cash
 - Consolidation and rating issues limit value of project finance
- **Rating agencies have a negative view on non-recourse debt**
 - They consider that utilities will not walk away from a strategic project and thus debt is not really non-recourse
 - In countries where power is sold to the market, utilities which provide PPAs are considered to have a long term liability under the project and this is counted against them by ratings agencies
 - Finally, certain utilities have covenants in their corporate credit facilities which prevent them from doing project finance if they control the project (and utilities typically prefer to control projects)
- **This comes in addition to the other perceived issues of non recourse debt**
 - More expensive
 - Intrusive involvement of multiple external parties
 - No results in offshore wind (London market perception)

The equity market – some lessons

And some optimism...

- **An active market – and a wider range of investors beyond utilities than people assume**
 - Dedicated funds, infrastructure funds and pensions funds
 - Private equity groups (Blackstone, etc.)
 - Corporations with specific strategies (LEGO, Colruyt, Marubeni)
 - and many more sniffing around the sector
- **Valuations are actually relatively consistent in the wind sector**
 - Permitted projects – development cost + premium @50-100kEUR/MW
 - Contracted projects – construction cost @ 1.5 MEUR/MW onshore or 3.5MEUR/MW offshore
 - Operational projects – linked to regulatory framework and IRR target of investors (7-10%)
- **Risks are relatively well understood and prices consistent with these**
 - As more assets are operational in each category, the universe of investors grows and IRR targets go down
 - Regulatory risk is the main cause of increased cost of capital and can be a “deal killer”
 - A “bankable” deal is also one which many investors can find attractive

The project finance market

The RE sector is structurally well suited for PF

- **An ideal sector for non recourse finance**
 - Well defined and differentiated assets
 - A capital intensive industry with heavy initial investments and long term cash flow
 - Mostly regulated revenues, linked to inflation
 - Ultimately, lenders bear political and operational risk, which is what PF is all about
- **Some differences with traditional PF sectors remain**
 - Fairly small projects (no longer applies for offshore)
 - Small, relatively unknown sponsors with weak banking relationships
 - A fragmented industry, with different players and rules in each country
 - The additional risk from the volatility of wind – and offshore, from accessibility

Investment in RE has been dominated by PF

- **All types of investors use PF**
 - Independent developers need the money
 - Financial investors need the leverage
 - Utilities use it to clear their balance sheets (for large pipelines)
- Over the past 4 years, PF has provided roughly 60% of the amount invested in renewable energy
- All the traditional PF banks are now active in the renewable energy space, even if some of them were latecomers

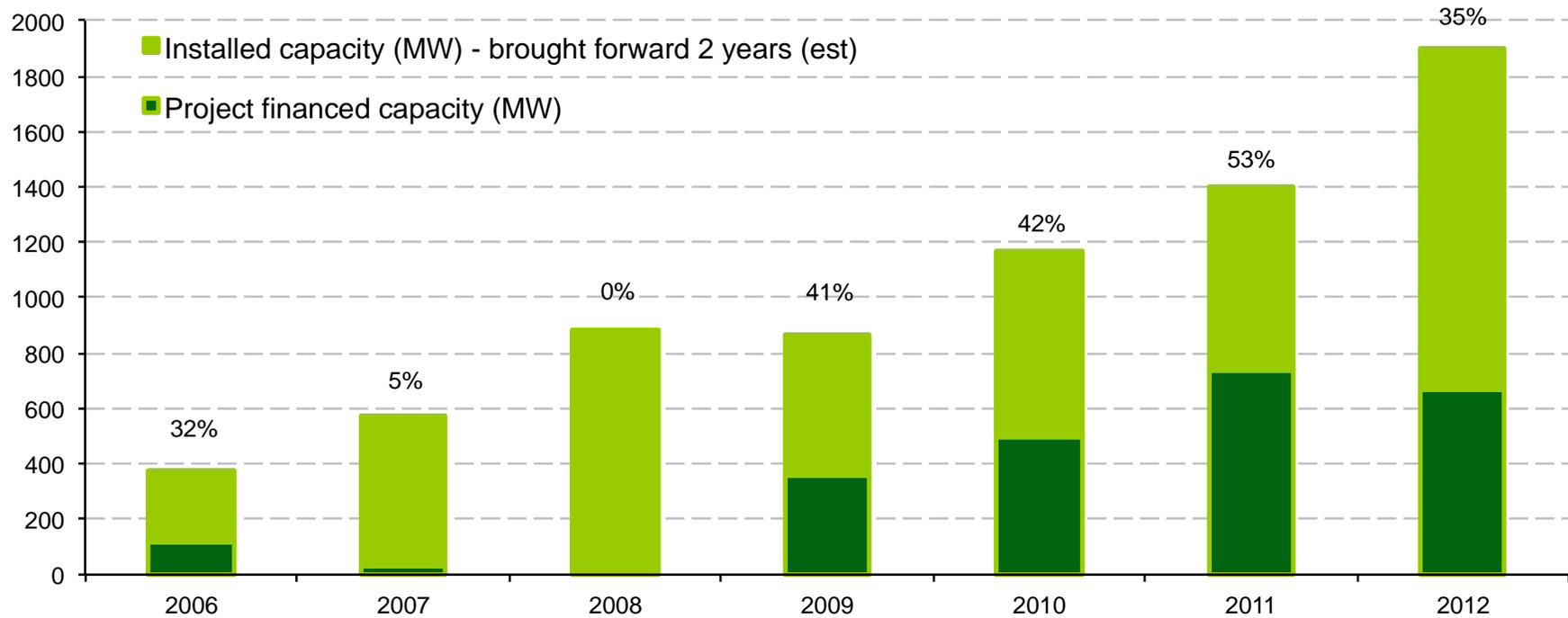
Wind PF has developed for small projects in specific jurisdictions; with offshore things are changing again

PF is a proven tool to finance renewables and wind in particular

The project finance market – offshore wind market share

Project finance already finances a significant fraction of overall offshore wind capacity

Offshore wind project financed volumes

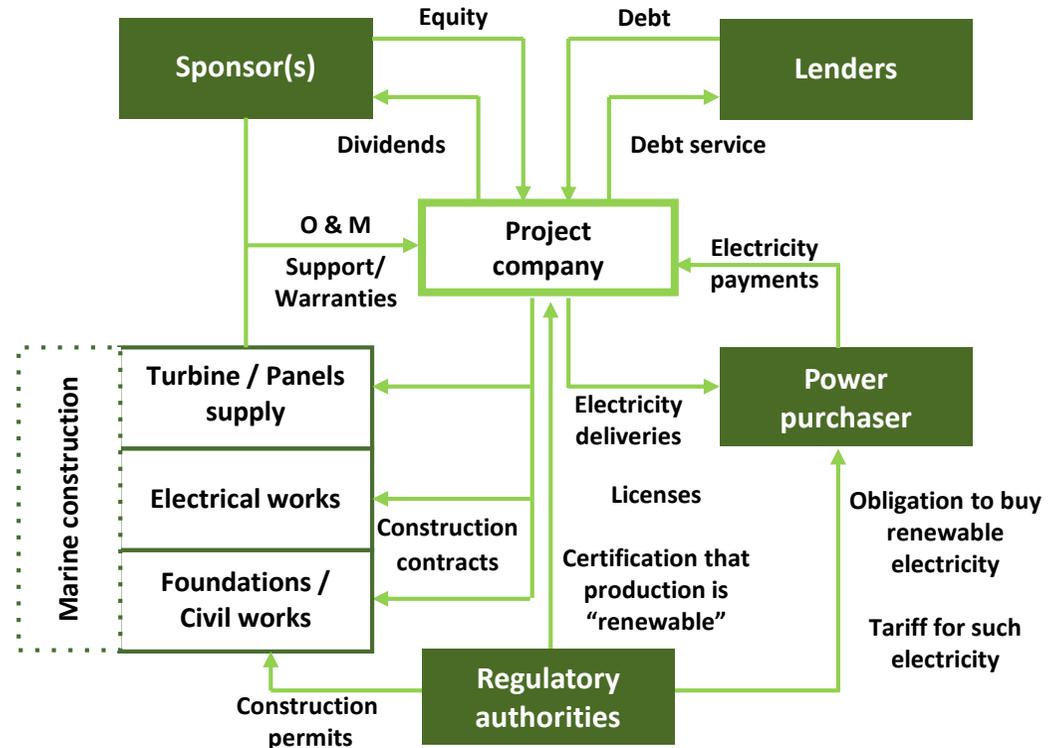


The project finance market – typical contractual architecture

PF transactions are always heavily contracted

- **Major contracts include:**

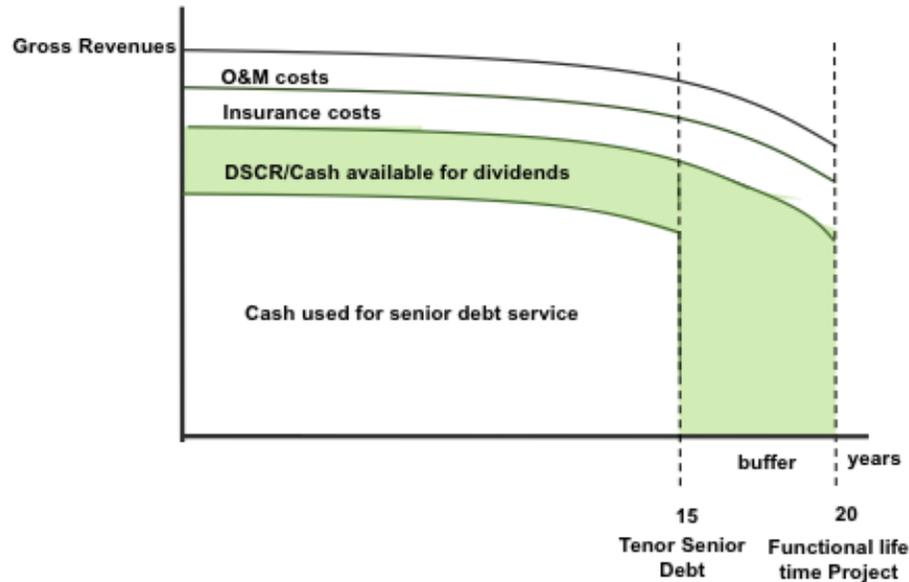
- permits, licenses, authorisations, etc...
- construction/supply contracts
- electricity sales contracts (and, if applicable, green certificates / RO contracts)
- O&M contracts
- financing documents



RE projects are quintessential examples of comprehensive contractual structures

The project finance market – debt sizing rules

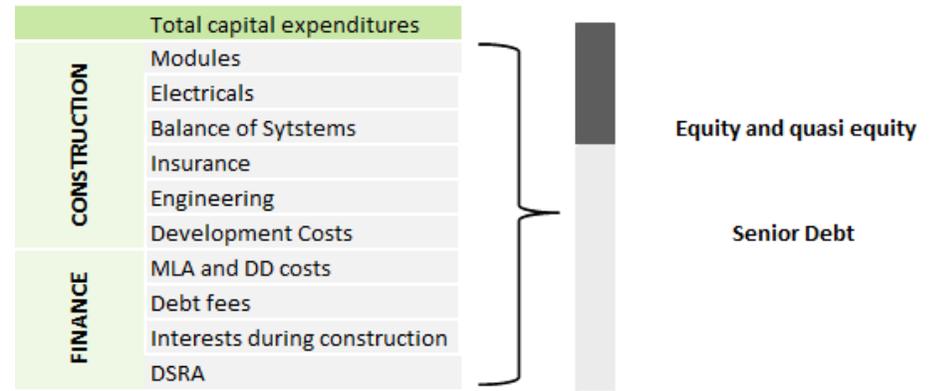
Revenue side constraint



DSCR constraint linked to available operating revenues

- No or very limited price risk on revenue side
- Conservative performance assumptions
- Conservative O&M cost assumptions

Capital expenditure constraint



Debt : Equity (leverage) ratio

- Limited tolerance for junior debt mechanisms
- Requirement in some cases (offshore wind) for equity to be paid upfront

The project finance market – pricing and conditions

The general project finance context

Typical project finance conditions - offshore	Leverage	Maturity post-completion	Pricing	Maximum underwriting
2006-2007	60:40	10-15 years	150-200 bp	50-100 M
2009	70:30	15 years	300 bp	30-50 M
2010-2011	65:35	12-15 years	250-300 bp	50-75 M
Current market	70:30	10-15 years	275-375 bp	30-50 M

- Banks have refocused – again – on known clients, core countries and strategic sectors of activity
 - The good news is that **wind remains strategic** for most banks today
 - **Countries where offshore wind is developing are seen as “safe”** (Germany - *until now*) and core for most banks
 - The biggest issue is regulatory – many banks now consider **Southern European countries as too risky** now because of unstable support schemes, severe budget cuts and widely overpriced assets
- Pricing is competitive
 - Margins look high but this reflects an increase in the banks’ cost of funding rather than an increase in the cost of risk
 - But the underlying long term cost of money is falling (in a mirror image), so **the overall cost of debt is actually stable**
- Structures (ratios, maturity, covenants) have actually been quite stable since 2007

The debt market – some lessons

The lessons from recent years

- **Good projects can find money**
 - There is still money for renewable energy projects (although not for everybody nor everywhere)
 - Well structured projects will obtain competitive debt conditions
 - No bank or individual institution is indispensable
 - Again: political risk is the biggest hurdle
- **The market is consistent in its requirements**
 - Debt sizing principles are quite stable and predictable
 - Due diligence standards and main covenants are similar across transactions
 - The same requirements apply in different countries for similar regulatory schemes

And meanwhile, some projects under construction have been giving a lot of work to project finance bankers...

- **Construction finance is a full time job**
 - Multiple time-consuming issues need to be dealt with throughout the construction period
 - Project management competence is of overriding importance
 - Banks are building a lot of experience which will be valuable for future projects

(this is not something that the capital markets can handle)

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