For professional investors - Marketing communication - October 2023

EFFECTIVE SOLUTIONS SOLVING COMPLEX DECOMMISSIONING QUESTIONS

October 2023

BNP PARIBAS ASSET MANAGEMENT

The sustainable investor for a changing world

INTRODUCTION

HOW COMPANIES CAN UTILISE PRIVATE AND CAPITAL MARKET RETURNS TO REDUCE THE OVERALL COSTS OF DECOMMISSIONING

Oil & gas, nuclear, traditional power, mining and increasing numbers of renewable companies currently hold large, long-dated liabilities on balance sheet to fund the decommissioning of retired assets. The remediation, restoration and environmental rehabilitation of these assets, accelerated by the Energy Transition, has become a focal point for businesses holding these assets. Increasingly the public, regulatory bodies and investors are reviewing how effectively companies are managing their decommissioning exposure obligations.

Companies have only an obligation to report such liabilities on their balance sheet, however there is no obligation to pre-fund such long term costs, except in the nuclear sector. While in some cases, such obligations are covered with non-cash guarantees, in practice nearly all the decommissioning obligations are unfunded and thus dependant on the available free cash flow when those obligations come due.

Given the increasing awareness of the financial, ecological and reputational issues associated with leaving multi billion/million obligations unfunded, some companies are now considering a more sustainable approach to deal with long dated liabilities in a more proactive way. This is particularly prevalent if the useful asset life of production assets could be significantly shortened in light of the Energy Transition.

Developing an overall strategic framework that supports decommissioning pre-funding and risk management will be a key enabler of an effective movement through the energy transition.

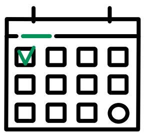
BNPP AM has multiple experiences and credentials across the world to provide tailor-made solutions subject to the client profile, regulation and business strategy.

DELIVERING OPTIONALITY THROUGH PREFUNDING

ALTERNATIVE APPROACHES TO MANAGING DECOMMISSIONING LIABILITIES

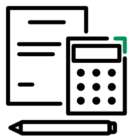
There are a number of options available when it comes to meeting decommissioning liabilities. Prefunding provides an efficient illustration in meeting long term costs and managing decommissioning risk. This process can be complex and companies face challenges from regulators, technology, financing accounting standards and operational idiosyncrasies. Briefly discussed below, these risk buckets can be addressed and more effectively managed through a prefunded solution.

CRYSTALLISATION



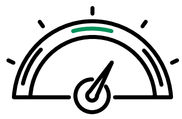
Closure dates can suddenly be brought forward by technological advances, commodity prices and regulatory changes causing an unplanned increase in liabilities

REGULATION



Companies operate in an increasingly tighter regulatory environment. As public and investors focus on responsible and sustainable investments heighten, more regulation on decommissioning are likely to follow

INVESTOR FOCUS

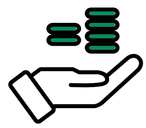


Institutional investors are evaluating decommissioning liabilities as a key indicator in financial and ESG rating decisions. Ability to meet decommissioning liabilities successfully can have share price implications

SUPPLY SHOCK

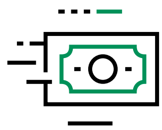
Relying on a single form of financing creates a vulnerability to a supply shock. Some funding instruments are not necessarily designed for this

CASH CALLS



Cash for decommissioning may be needed when core operations are in cash preservation mode

TECHNOLOGY



While technology developments may assist with costs the clear direction is to stricter environmental restitution requirements and the associated cost increases this brings

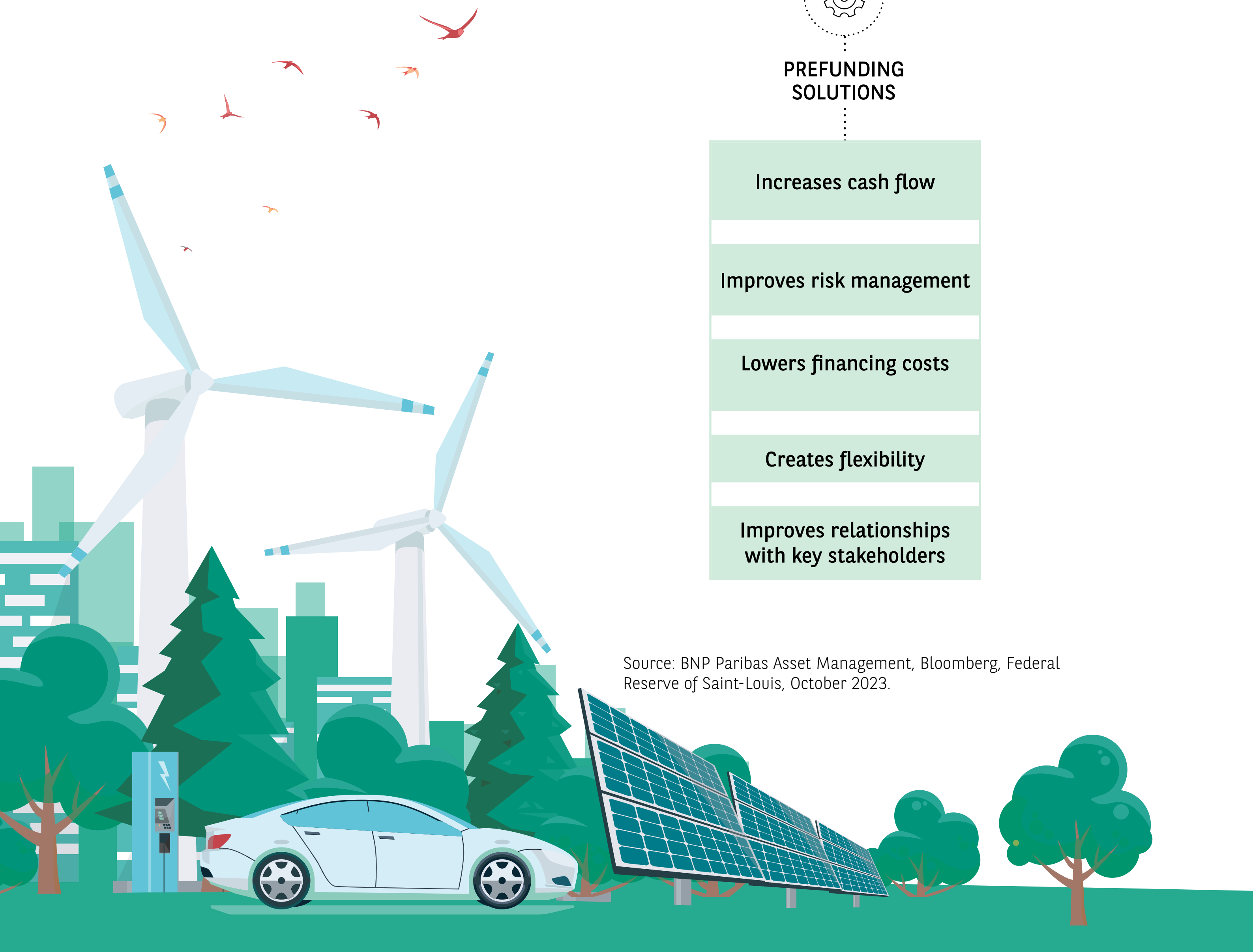
Source: BNP Paribas Asset Management, Bloomberg, Federal Reserve of Saint-Louis, October 2023.

FOUR OPTIONS IN TACKLING THE DECOMMISSIONING CHALLENGE

Option 1	Option 2	Option 3	Option 4
"Pay-as-you-go"	**Transfer of liability through divestment**	**Prefund a decommissioning reserve**	**Transfer the risk (Captive or Insurance Solution)**

PREFUNDING SOLUTIONS

- Increases cash flow
- Improves risk management
- Lowers financing costs
- Creates flexibility
- Improves relationships with key stakeholders



Source: BNP Paribas Asset Management, Bloomberg, Federal Reserve of Saint-Louis, October 2023.

ALTERNATIVE APPROACHES TO MANAGING DECOMMISSIONING LIABILITIES

Decommissioning liabilities can be managed in different ways with varying levels of risk, financial commitments, corporate strategy impact, ESG and credit rating impact and complexity. In practice, we are leveraging BNPPAM's long and extensive experience and track records with defined benefit pension funds and insurance companies.

	Overall	Risk level	Financial standing impact	Support for corporate strategy	Reduce global tax burden*	ESG and credit rating impact	Ease of imple-mentation
Option 1: Pay as you go	--	--	-	-	--	--	+
Option 2: Divestment	-	+	+/-	+	-	+	---
Option 3: Prefund via a decommissioning reserve	-/+	+	+/-	+	+/-	++	++
Option 4: Prefund via a captive	+	+	+/-	++	+	++	+

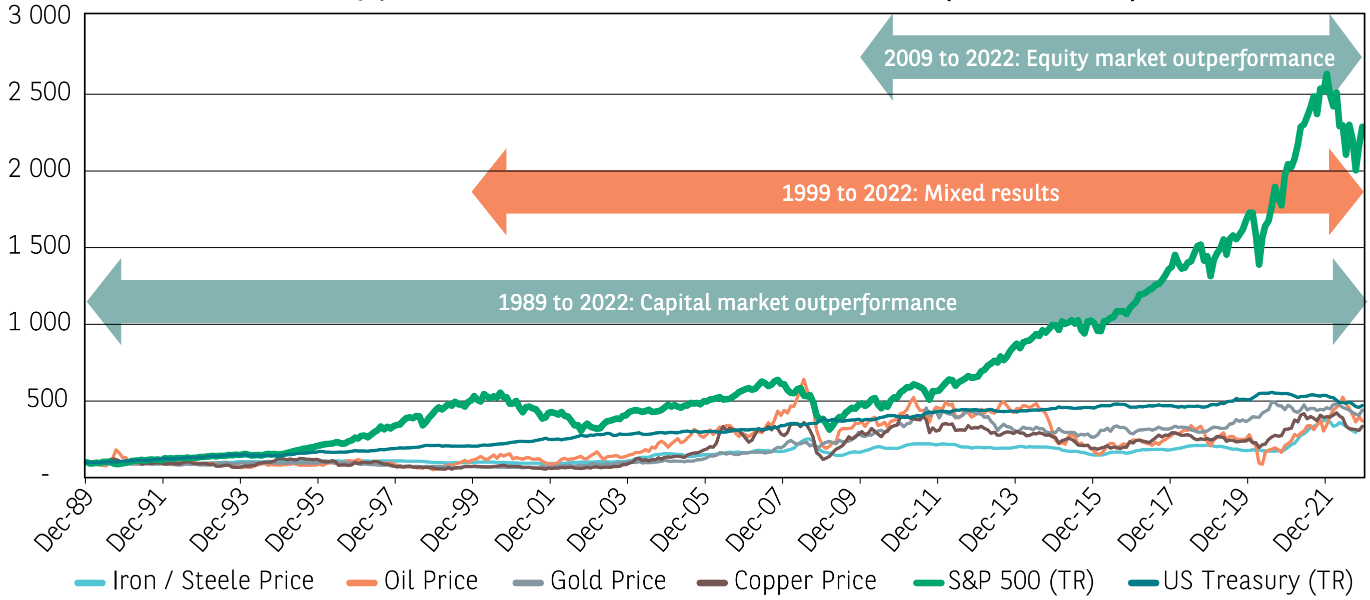
Notes * Tax impacts will be a function of local laws on prefunding, as well as tax authorities' views on trust and insurance-based solutions that have an accumulation component versus those that purely smooth financial outcomes
Source BNP Paribas Asset Management, Ryerson, October 2023

THERE IS A HIGHER RISK OF FAILING ON THEIR ENVIRONMENTAL OBLIGATIONS WHEN COMPANIES SOLELY RELY ON THEIR AVALAIBLE FREE CASH FLOW AT THE TIME OF THE DECOMMISSIONING AND ENVIRONMENTAL REHABILITATION COSTS BECOME DUE

Commodities may not provide O&G companies with the stable revenues necessary to meet decommissioning / remediation costs when they come due:

- Commodity prices show periods of under- and over-performance compared to liquid investments.
- To meet remediation costs, it is crucial to maintain stable returns for relatively long periods of time.
- As can be seen in the graphs below, this is potentially better achieved by relying to some extent on market securities, uncorrelated from the O&G industry performance cycles.

Commodity prices vs. S&P 500 and US Treasuries since 1989 (100 = Dec-1989)



Source: BNP Paribas Asset Management, October 2023

Julien S. Halfon

is Head of Pension & Corporate Solutions within BNP Paribas Asset Management's Multi-Asset, Quantitative & Solutions investment group (MAQS), in London.

julien.halfon@bnpparibas.com, +4420 7063 7258

Vincent Mayot

is Senior Structurer for the Multi-assets, Quantitative and Solutions investment group at BNP Paribas Asset Management, in London.

vincent.mayot@bnpparibas.com, +4420 7063 7535

James Sheen

is the UK decommissioning specialist working alongside the Multi-Asset, Quantitative & Solutions investment group (MAQS) at BNP Paribas Asset Management in London.

james.sheen@bnpparibas.com, +4420 7063 7259

VIEWPOINT

October 2023 - Design: Creative Services BNPP AM - P2212013