Unlocking private sector investment in UK Rail

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Executive Summary

The UK's rail sector faces significant challenges. Essential infrastructure enhancements are required to modernise the network, increase freight capacity, reach net-zero mobility targets and ultimately deliver a rail network fit for modern Britain.

Meeting this challenge will necessitate substantial investment. However, in the current spending climate of high costs and tightening budgets, relying solely on public funding, as is currently the case, is no longer viable. This report outlines why investment in rail is still crucial and how the next Government should harness private-sector investment to bridge the looming funding gap, in addition to the reforms and incentives needed to attract private-sector rail investment.

Most vitally, this report makes the case that securing alternative streams to deliver rail projects is not merely a challenge that must be met, but an opportunity that can be seized. Rail infrastructure drives productivity, fosters economic growth and provides immense social value. Securing the right investment has the potential to generate substantial economic and social benefits across the length and breadth of the country.

To harness private investment, regulatory reforms are essential. Long-term stability, a clear strategy, simplification of contractual arrangements, risk allocation reconsideration and enhanced market engagement are among the suggested reforms. Additionally, this report explores the routes to private investment such as Public-Private Partnerships (PPPs) and Green Finance.

The business case for investment in rail infrastructure

The case for investing in rail infrastructure is overwhelming. Rail is one of our vital national assets, playing a seismic and central role in the United Kingdom's economic growth, productivity and global competitiveness. Maintaining this critical asset alone will require significant investment. Whether it is combatting our sluggish growth and anaemic productivity, delivering the transition to Net Zero, or addressing the deep regional wealth disparities that have rendered the UK one of the most spatially unequal countries in the developed world, rail has a huge role to play. Britain’s and rail's success are inexplicably linked; rail can only meet the challenges with the right level of investment.

Rail is not just trains and track but also a powerful tool for economic and social good, inducing both directly and indirectly a swathe of benefits, regionally and nationally. Rail investment can raise living standards, support families and transform communities.

Seven key reasons to invest in rail

Need for modernisation

There is a broad consensus across political lines that rail will require a substantive modernisation program to meet the future needs of the country. New infrastructure, increased freight and passenger capacity and digitisation will all need upgrades to meet changing demand. Equally, the workforce will also need to be upskilled to deliver these upgrades.

Keeping on track for Net Zero

There is a commanding environmental case for rail investment. The Government has instructed that transport in the UK must transition to lower carbon modes to meet the Net Zero target. Rail is a small part of the existing carbon emission problem but will have to be a major player in solving the challenge. Primarily through facilitating a modular shift from road and air to rail, but also through the decarbonisation of the rail network itself, achieving the lowest carbon emissions possible. It is generally agreed upon that electrification will be the frontrunner in this process, augmented by emerging technologies like battery and hydrogen-powered traction. Delivering this will require a sizeable program of projects, enhancements, and maintenance.

Failure to invest in rail decarbonisation also presents a dual threat. Firstly, it almost certainly means that the UK will fail to reach the overall Net Zero target. Secondly, underinvestment will hugely curtail our ability to keep pace with the international competition to cultivate green industries and skills, threatening our global competitiveness.

Delivering net zero rail also poses societal benefits: enhanced air quality, mitigated climate change risks, decreased congestion and heightened biodiversity.

Beyond its environmental contribution, decarbonisation also presents a robust economic case. For example, data from NSAR and the Rail Delivery Group (RDG) shows that delivering the Net Zero rail ambition could create 6,000 jobs across the UK and add £2.2 billion in extra benefits to the economy.

Economic value

The UK railway sector plays a pivotal role in supporting the nation's economy. According to research conducted by Oxford Economics in 2019, the UK's overall railway network contributed £42.9 billion to economic production. This contribution was accompanied by the creation of approximately 710,000 jobs within the sector. The industry also generates significant tax revenues, amounting to £14.1 billion per year to the exchequer. Rail freight makes a major contribution to the UK PLC, delivering over £30 billion worth of goods to customers across Britain and generating 2.4 billion in economic benefits in the process.

Rail is vital to Britain's prosperity and constituted investment is paramount for our economic well-being.

However, heightened investment can unleash a plethora of further benefits, for example:

- A 2021 study from the Railway Industry Association, based on analysis undertaken by the National Infrastructure Commission, found that if investment in rail were increased by 50%, the industry's contribution to the economy would be an additional £5.6 billion per year over four years, generating an extra 104,000 jobs concurrently.

- A 2017 RDG report found that upgrading existing tracks and manufacturing new rolling stock could deliver £82 billion of extra economic benefits. The RDG also found that improved quality and incremental service-level improvements from the investment could generate £5 billion in extra economic benefits.

- According to Network Rail, the sector enhances the economy's productive potential by up to £10.2bn per year, with the supply chain supporting 216,000 jobs across Britain.

Social value

The rail industry and its supply chain provide a significant number of jobs in some of the places where they are most needed. For instance, research from Perspective Economics states that rail and supply chain businesses operating in northern England collectively employ 150,000 individuals.

The benefits of rail, however, extend far beyond job creation. Rail infrastructure investment can be a tool for vast swathes of social change. For example, time savings, augmented wages, diversified job opportunities, bolstered public health and enhanced accessibility to essential services for communities – all of which ultimately foster greater social cohesion. Securing increased rail investment could deliver:

- Public health: £115 million per year in healthcare cost savings could be generated by improving public transport in six of the UK's largest cities.

- Reducing journey times can lead to significant wage increases. For example, shortening the journey between Manchester and Leeds by 20 minutes could increase wages by approximately £600 per worker per year.

- Job opportunities: A 10% reduction in regional journey times could support up to 12,600 jobs.

Skills

Delivering the necessary infrastructure will also go hand in glove with the delivery of new skills demand and, in turn, more jobs. NSAR data indicates that if the industry has the security of investment in long-term projects, which increased investment would provide, then rail can generate significant economic and social wins.

Bridging rail skill gaps delivers the opportunity to generate between £128 million and £181 million for the UK economy between now and 2028.

- Using the assumption that 20% of roles are filled by economically inactive people from a disadvantaged background, the sector could produce £412 million in social value by 2028.
- Widening workforce participation in rail yields substantive benefits to the Exchequer. NSAR data indicates that each new role will generate £42,500 through incremental benefits to the Treasury and welfare reduction.
- Training and upskilling within the industry will provide significant returns, with NSAR evidence showing that every £1 spent on rail skills training results in a £3 return on investment.

Growth and productivity

Britain had been stuck in a doom loop of stagnating growth for over a decade (15 years in terms of relative decline), with our productivity at half the rate of our best-practice peers in advanced economies. This has caused wages to flatline, leaving millions of British workers having never participated in an economy with sustained wage rises. Britain needs growth. There is much evidence to support that a) a cause of stagnant growth and low productivity is underinvestment in infrastructure and b) increasing investment could serve as an antidote and fuel growth via productivity increases, as well as generating numerous positive externalities, outlined in the next section.

Attracting private-sector investment into the industry can also enhance productivity within the rail sector itself. The competitive dynamics and rigor of private finance are well evidenced to drive efficiency measures, facilitate more skilled procurement, foster innovation and R&D, lower costs and ultimately increase productivity, thereby alleviating the burden on public finance and taxpayers.

Dynamic effects of rail infrastructure

The significance of externalities stemming from a rail infrastructure investment cannot be overstated. Whether impacting regional planning, housing, or tourism, the economic gains can be colossal. The following case study illustrates the profound effect on the agglomeration level of a regional economy resulting from a major infrastructure project.

Case Study: HS2 and the West Midlands

The impact of the HS2 project on the West Midlands captures this phenomenon well. A report by the consultancy Arcadis has shown that the dynamic impact of the HS2 project in the region includes the potential for 40,000 new homes and 30,000 jobs, with planning applications having risen by two-thirds.
The study found that since 2017, the West Midlands has attracted the most inward investment outside of the capital and the Southeast. The investment has also delivered:

- A sixfold increase, to 54,642, of new homes planned.
- Two-thirds increase, to 260, in planning applications.
- A trebling of planned commercial and residential floor space to 7.21 million sq. m.
- The value of overall construction was up 240 percent, to £15.4bn, as total values fell outside those zones by 16 percent.

Overall, Arcadis's analysis suggests that HS2 and the associated development will generate a regional economic uplift of £10 billion over the next decade.

The funding challenge

As outlined, there is a critical need for investment in UK rail and a strong business case to support it. However, delivering the necessary infrastructure will be costly and it is highly doubtful that public spending alone will suffice to generate the necessary capital. Considering the height of the UK tax burden (its highest rate since the Second World War), ongoing inflationary pressures and significant constraints on public finances, such investment is implausible. The current model of relying solely on public funds is clearly unsustainable and alternative funding streams will need to be secured, and here, the private sector plays a pivotal role.

This isn't just the case for rail but also for infrastructure broadly. An assessment last year from the National Infrastructure Commission (NIC) concurred with the need for private infrastructure investment across the economy, asserting that the UK will have to increase private sector infrastructure investment to some £40-50 billion pounds by 2030s and 40s.

The case for private sector investment

Most vitally, securing a new financing model would facilitate the continued maintenance and improvement of Britain's railways by supplementing public resources, ensuring that current and future governments can meet some of the country's most pressing challenges (such as achieving Net Zero and promoting levelling up). However, a more balanced financing model also offers a range of other benefits. For example, greater private capital would significantly free up treasury spending capacity for other priorities, such as healthcare or education.

Another vital component of a new financing model is its impact on costs – one of the biggest inhibitors to undertaking projects. Private sector involvement in rail infrastructure will add new dimensions to the industry's competitive landscape. Under the existing rail infrastructure delivery system, the absence of competition fosters inadequate incentives for innovation and cost optimisation. Introducing more private capital would incentivise both Network Rail and its suppliers to elevate innovation, enhance cost efficiency and increase the rail market's contestability. Consequently, this shift should lead to improved value for money for taxpayers (source: Hansard review).

Overcoming the obstacles: reforms to unlock investment

Private investment offers significant potential for enhancing the resources dedicated to crucial infrastructure development. However, numerous obstacles are impeding the creation of a policy and market environment conducive to investment. The ability to attract private capital into the sector will rest on the robustness of the policy and regulatory framework. Outlined below are some of the key reforms and incentives the next government may wish to consider to help build such an environment.

Long-term stability

UK's current approach to investing in key rail assets and enhancements is characterised by a sporadic pattern, which not only discourages investment but also results in wasteful expenditure and undermines productivity. To unlock investment, the rail sector requires a comprehensive, long-term industrial strategy supported by a transparent and stable pipeline of projects, in the context of the industrial strategy. It is imperative for the Government, in collaboration with Network Rail, to clearly outline investment priorities and infrastructure needs reliably – and then stick to them. The lack of a defined roadmap for future opportunities presents challenges for investors, hindering their ability to address inefficiencies associated with isolated projects and secure adequate resources and financing for projects.

Speed of decision making

Prolonged decision processes and subsequent project scope deviations can significantly disincentivise private sector investment. Accelerating the bidding process offers the potential to significantly reduce lead times and attract investors. Planning also needs to be reformed to create a better environment for the private sector. NIMBY-style objections can massively delay infrastructure projects (such as HS2), again acting as a barrier to investment.

Measuring the business case for projects

Cross-benefit analysis of private versus public finance is too rudimentary on infrastructure projects. A failure to assess the whole life cycle of a project and its dynamic effects often results in the Treasury rejecting strong business cases for major infrastructure projects that are attractive to the private sector. Installing a proper culture of cross-benefit analyses across Whitehall will be essential to securing necessary investment.

A shift is needed in how rail and other significant transportation infrastructure projects are perceived; the Government needs to move beyond simply measuring static impacts, such as time efficiencies. Modern rail and infrastructure should be viewed as mechanisms for delivering broader Government priorities. Rail can be a catalyst for fostering economic expansion, job creation, housing development and overall improvements in the quality of life for regions and communities. These impacts need to be baked into funding strategies, so they can deliver.

Achieving this will also lead to a more realistic appraisal of the cost comparison for benefits of private finance as opposed to public borrowing, which is not currently the case.

Cost estimates

Excessively optimistic cost projections pose an investment challenge. Presently, there is insufficient effort to draw lessons from both the achievements and shortcomings of previous rail enhancements and projects, the root of this issue is largely the lack of any government entity tasked with assessing historical project data.

A solution to this problem has been pioneered by Highways England: reference class forecasting (RCF). Since Highways England introduced this RCF, they have reduced their average forecasting error from 20% to just 2%. Network Rail and the government should seriously consider the value of this in achieving greater forecasting accuracy and, in turn, what this would do to improve market confidence. The private sector will be far more willing to invest with quantifiable costs.

Complexity of contracts and the bidding process

Contractual arrangements within the rail industry can often be needlessly complex, accompanied by prolonged development processes. The perceived bureaucracy can deter the private sector, which needs assurances of direct returns on investment. This process needs to be simplified so the market is issued clear guidance on engaging with the process. Unclear and complicated systems are costly and, therefore, prohibitive for investors.

Developing the necessary commercial acumen

Successful delivery of properly functioning private and public sector partnerships will be contingent on Network Rail and the civil service being able to access the right commercial skills and expertise. Embedding these skills into decision-making will be vital, particularly to avoid the mistakes made in previous private-public infrastructure partnerships. Commercial involvement cannot be an afterthought in the policymaking process, as is often currently the case. The Government and Network Rail must introduce measures to ensure they possess the capacity and capability to undertake an enhanced commercial role.

Effective market engagement

Government and Network rail interaction with investors has been fleeting and sporadic. Ministers should heed lessons from past oversights and engage with investors earlier and frequently. Such consultations should be targeted at the very beginning of a project and conducted with a well-balanced and representative group.

The process needs to be reliable, avoiding repeated engagement on projects that don't ultimately proceed.

As highlighted in the 2017 Hansford review, there is a "*lack of a systematic and repeatable approach for private sector companies to invest, manage risks, and attain financial returns for overseeing Network Rail's infrastructure*."

Clean infrastructure tax breaks

Providing suitable tax incentives to investors for financing the implementation of new traction modes and infrastructure would go a long way to stimulate investment. For instance, offering a capital allowance treatment for expenditure on Net Zero Infrastructure is one option that could be explored.

Routes to private sector rail investment

"*There is a growing appetite for more well-structured rail investment" – Aviva Investments".*

Public-Private Partnerships

Governments globally are successfully pursuing cost-effectiveness by enhancing the conventional method of public infrastructure delivery and management through the integration of private investment. The most recognised avenue for private investment is via Public-Private Partnerships (PPPs).

Essentially PPPs are agreements to finance long-term infrastructure and public services employing a financial structure where project-specific debt/equity is paid back from the cash flow generated by the infrastructure or project.

In addition to financing, PPPs also provide the public sector access to the expertise and efficiency of the private sector, which is generally more robust than the public sector in optimising for cost.

PPS has already been used in the UK to deliver some of our best new rail infrastructure, such as the nearly £15bn Elizabeth line, one of the biggest UK rail projects in a generation, which was procured through PPP arrangements. Nationally, the project is estimated to have added £42bn to the UK economy. Locally, in the capital, it has induced swathes of regeneration, including 171 hotels, 2,666 new food and beverage outlets, and 12 museums. It wasn't just a gift to London; however, over 60 percent of the project's contracts were given to firms beyond the M25, leading to many high-skilled jobs across the country. It's also not just the UK; the case study below shows the power of utilising PPP.

Rail PPP Global Success Stories

Some examples include the Gautrain project in South Africa, a successful PPP initiative that introduced a modern rapid rail network connecting Johannesburg and Pretoria. Private sector involvement in funding, construction and operations helped deliver a state-of-the-art rail system, easing congestion and improving connectivity in the region. Research on the broader advantages of the project reveals that from 2006 to 2011, the project generated more than 122,000 jobs. Additionally, for every ZAR 1 invested in the project, ZAR 1.72 has been contributed to the Gauteng economy.

Another example is the Taiwan High-Speed Rail, system, a PPP project that revolutionised rail transportation in the country. Private investors collaborated with the government to finance, construct, and operate the high-speed rail network, significantly reducing travel times between major cities and boosting economic development along the route.

Mutual Investment Model

The Mutual Investment Model (MIM) is an alternative approach that both the Government and rail network should consider. Developed by the Welsh government, MIMs are profit-sharing financial structures that have been hailed as an innovative method for funding major infrastructure projects. A key advantage of MIMs is that they enable governments or local authorities to acquire an equity stake in the project, thereby allowing them to share in the project's profits.

Contracts for Difference

Private sector investment could increase in rail if the government adopts the Contracts for Difference (CFD) model, commonly used in large-scale renewable energy projects, especially offshore wind. The substantial impact of CFDs on renewable energy has been evident, as seen in the UK's notable transition towards renewable energy sources.

Essentially, CFD deploys public funds to stabilise prices over time, mitigating the risks of a volatile market. By providing a secure investment environment and a consistent revenue stream, they have effectively bridged the gap between the

Government's priority of increasing renewable energy and how attractive such projects were to investors.

Moreover, beyond just boosting private investment, the CFD model can drive efficiencies by incentivising investors to streamline operations, reduce costs and enhance productivity. The fixed price mechanism in the CFD model encourages innovation and cost optimisation to maximise profits.

Unlocking green investment

Private investors are increasingly interested in green projects. The sustainable finance market is booming, expanding from $5.2bn in 2012 to $540.6bn in 2021. The transition to Net Zero rail presents a significant opportunity to tap into this market, that the industry must seize.

Specifically, both industry and government should consider leveraging the UK Government's Green Financing program, which has allocated billions to fund clean infrastructure projects. Additionally, there is ample opportunity for the industry to utilise the UK Infrastructure Bank, particularly its ability to provide sovereign guarantees for projects.

The Path Ahead

In conclusion, as outlined in this report, it will be imperative for the Government and Network Rail to secure more private investment in rail. The rail network is a cornerstone of the United Kingdom's economic success, productivity and future global competitiveness. The UK's rail infrastructure is not only crucial for combating economic stagnation and addressing regional disparities, but it also plays a pivotal role in achieving the vital Net Zero targets and fostering social well-being. The benefits of investment in rail are manifest. The challenge of delivering infrastructure through the current funding is too formidable; the rail industry and Government must embrace private sector involvement through models like Public-Private Partnerships to forge a path forward. By unlocking the potential of private sector rail investment, we can not just ensure rail can continue to deliver its vast economic and social benefits, but the industry can also pave the way for a more prosperous, sustainable and connected society.

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