



A Public Vision for Financing Scotland's Railways

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This report, proudly commissioned by ASLEF, comes at a critical moment. As ScotRail over the next few years looks to replace its rail rolling stock it must turn away from the flawed and profiteering ROSCO's, that are a legacy of the failed privatisation of our industry.

This report makes clear that ScotRail must not turn from ROSCO's to the another failed model of PFI/SPV that would also see profits extracted from our industry, often to shareholders who off-shore their profits to tax havens.

We must move away from this economic catastrophe, where those who profit from public services avoid paying their fair share of tax that pays for those same public services.

Now is the time to reject that political and economic failure. Instead of allowing profits to be extracted and lost, ASLEF believes that we must create a public financing model that sees the money lost in profits instead reinvested in rolling stock, in rail infrastructure, in staff and to help reduce ticket prices.

This important report points to a public financing model that would help save rail services in Scotland hundreds of millions of pounds if it was deployed by ScotRail and the Scottish Government.

What is needed is political imagination and a change of direction. It is time to reject the failed rolling stock privatisation and once and for all remove all forms of profiteering from Scotland's railways.

ASLEF wants to put on record our thanks Professor Andy Cumbers and Grace Brown from Glasgow University for this vital report. We believe that their report points the way to a new future for rail services in Scotland.

If adopted and developed, their proposal to fund new rolling stock using Green Bonds would help to make our railways more affordable, accessible and attractive and help provide the additional resources to develop the world class rail service that Scottish people need and deserve.

We urge Scottish Ministers, MSP's, Transport Scotland, ScotRail and Scottish Rail holdings to read this report, embrace it and implement their recommendations. It is now time to turn completely away from the failed legacy of privatisation.

Mick Whelan
ASLEF General Secretary



EXECUTIVE SUMMARY

- ScotRail is faced with the task of replacing its ageing rolling stock in a way that delivers best public value for Scotland, while also meeting its net zero goals and enhancing passenger experience and affordability.
- The current Scottish rolling stock procurement system, inherited from the UK's privatisation process, relies on private rolling stock companies (ROSCOs) and private finance initiatives (PFIs), a model widely recognised as failing. This system is unique to the UK, while other countries continue to use public financing for rolling stock investment.
- There is no logical or rational economic reason for using private financing models for funding rolling stock. The use of private financing models to fund public goods and services is based on inherently political, not economic, decisions, made in order to meet arbitrary treasury rules and keep investment 'off the books'. This is a system that suits no-one other than those who are extracting profits from the rail industry (and other public services) in Scotland and across the rest of the UK.
- In this report we advocate a public option for financing, owning and managing Scotland's future rolling stock needs. This will deliver better value than private options, achieving a minimum of 40% savings on investment (which we believe to be a conservative estimate), ensuring that more revenue is available for reinvesting in Scotland's transport infrastructure, such as financing the reduction of fares.
- To facilitate public procurement, we propose that Scottish Government issue Green Bonds through its Global Capital Investment Plan to finance new trains. This model, growing in popularity worldwide, focuses on critical infrastructure investment aimed at the post-carbon transition, ensuring revenues are used for environmental and social sustainability rather than private profit.
- Based on rates derived from existing 30-year government bond levels compared to the current cost of private capital in the transport sector, we estimate that publicly funding rolling stock **could save up to £362 million** in private debt repayments.

FAILINGS OF THE PRIVATISED SYSTEM

- Scotland's current model of procurement rolling stock – inherited from UK rail privatisation - has failed in its core purpose of producing an effective high quality and well managed system of train delivery and maintenance.
- Under the ROSCO system there has been a lack of investment in new trains, alongside profiteering from the leasing model they operate under. To make up the shortfall in necessary investment, the Scottish and UK Governments have created Special Purpose Vehicles (SPVs) which use private finance, effectively forms of the Private Finance Initiative (PFI). These models result in public wealth being extracted for private profit, with PFIs up to 70% more expensive than publicly financed investments.
- This approach greatly constrains Scotland's ability to deliver on its National Strategy for Economic Transformation, in particular by diverting revenues to private financial interests that could be better used to tackle critical policy goals linked to creating a wellbeing economy, building community wealth and achieving the country's target of net zero by 2045. In particular, it limits the potential to encourage the shift from car use to trains that public investment in an improved rail network and cheaper fares would facilitate.
- The privatised ROSCO system has allowed companies to make exorbitant profits, with revenues being siphoned off from the Scottish rail network for shareholder dividends at the cost of the public purse. 25% of every rail ticket sold in Scotland currently goes to ROSCOs, and to service shareholder dividends rather than being reinvested in the rail infrastructure.^[1]

ADVANTAGES OF A SCOTTISH PUBLIC FUNDED AND OWNED SYSTEM OF ROLLING STOCK

- Publicly financed options are cheaper and provide better value since government bodies can borrow more cheaply than private firms. **Savings of up to £362 million in private debt repayments, could be reinvested in Scottish rail services and the wider transport network.**
- Decision-making and control of rolling stock would return to the Scottish Government and ScotRail, enabling a long-term strategic approach to managing and investing in rolling stock to achieve public policy goals. This would strengthen the ambition to create a single, fully publicly owned, integrated Scottish railway network.

- Stopping the flow of ticket revenues to fund the profits of private entities, many of whom are located in tax havens, would offer the opportunity for Scotrail to develop innovative, more affordable pricing solutions to increase train use and subsidise low income and disadvantaged communities, encouraging more passenger demand.
- Revenues generated could also be reinvested in Scotland's railways to accelerate the transition to a post-carbon rail system. In this, a public option can prioritise social and environmental needs over private wealth accumulation.
- Better advance an industrial policy for rail as part of Scotland's National Economic Strategy for Transformation that develops a local supply chain of high-quality manufacturing and services with job creation and training at its heart.
- Leverage the existing expertise and skills in Scotrail and Transport Scotland to deliver a public system for replacing Scotland's rolling stock, using the knowledge of the existing workforce to do so.

USING GREEN BONDS TO FINANCE SCOTLAND'S ROLLING STOCK

- Green Bonds offer a cost-effective, sustainable funding mechanism for procuring rolling stock in Scotland. They work like traditional bonds, where an issuer raises capital from investors and commits to repaying the principle with interest over time, but proceeds raised must be used for projects that contribute to sustainability, including clean transportation.
- Scotland has the legislative power and growing investor appetite to issue government bonds. The Scottish Taskforce for Green and Sustainable Financial Services recommends using Green Bonds. Green Bonds align with the Scottish Government's priorities around net-zero, inclusive growth, and community wealth building.
- A Scottish Green Bond could strategically target institutional investors, including pension funds, while enhancing Scotland's global reputation as a sustainable investment destination.
- Countries such as Germany and the Netherlands have successfully utilised green bonds in transitioning their transport networks towards net-zero. Scotland should utilise the diverse public financial instruments at its disposal in its own transition.

RECOMMENDATIONS

1

Harness public sector expertise: use the skills, knowledge and expertise of the staff working at ScotRail, Scottish Rail Holdings and Transport Scotland to manage Scotland's Rolling stock.

2

Utilise Green Bonds for financing: the Scottish Government should issue Green Bonds to fund new rolling stock procurement, leveraging Scotland's borrowing powers to secure lower-cost, sustainable investment.

3

Reinvest public revenues into the rail system: ending profit extraction by private rolling stock companies would allow revenues to be reinvested into improving service quality, affordability, and accessibility.

4

Align rail procurement with climate goals: all future rolling stock investments should prioritise sustainability, electrification, and carbon reduction in line with Scotland's 2045 net-zero target.

5

Support domestic manufacturing and supply chains: public procurement of rolling stock would allow better integration of local supply chain development and skills training to maximise economic benefits for Scotland and the UK.

INTRODUCTION

Scotrail is facing the challenge of renewing the country's ageing rolling stock^[2] with 65% of its fleet needing replacing between 2027 and 2035.^[3] Sixty-nine new suburban passenger trains are needed, along with further orders for more electric trains, to help Scotland meet its climate targets and achieve net zero emissions by 2045. Transport is Scotland's biggest CO2 emitter, with 68% of emissions from cars. The country has a 'world leading aspiration' to achieve a 20% reduction in car use by 2030 necessitating a massive shift towards rail use.^[4] If Scotland is to meet its targets it needs to encourage a radical shift in the behaviour of road users. Transitioning to a post-carbon transport system requires providing a high level of passenger service and safety standards at an affordable cost to encourage greater use, while minimising waste and maintaining a highly skilled workforce.

Following UK rail privatisation in 1996, the provision of rolling stock in Scotland continues to be outsourced to private contractors in what is increasingly seen as a flawed model. The ROSCO (Rolling Stock Operating Companies) model generated massive private profits, that are extracted straight from the rail system and reduce the money available for reinvestment. This has not served the public interest nor seen new and regular investment in rolling stock. **To make up for the shortfall in investment in new trains, governments have resorted to other forms of private financing, which can be up to 70% more expensive than publicly funded solutions. PFIs, SPVs and other forms of Public-Private Partnerships (PPPs) are more expensive because they involve a consortia of banks and construction companies that charge governments higher rates for finance than if they would to borrow directly on the capital markets through conventional bond issues.**

The current cost of private capital in the transport sector (the Weighted Average Capital Cost) ranges between 6.3% and 9.2%.^[5] The current 30-year government bond levels, in comparison, have a coupon rate of 4.38%.^[6] Thus, for the estimated initial capital outlay of £250 million for a 30-year contract to procure the 69 new passenger trains, the public purse could save between £144 million and £362 million in private debt repayments.

No other country in the world has adopted the UK's privatised model of rolling stock procurement. Instead, state owned railways elsewhere use conventional forms of public investment to procure and manage their own passenger trains. This is the model that was used in Scotland prior to privatisation. In this report, we argue that it is time for Scotland to follow best practice elsewhere by returning to a public procurement route in financing new generations of rolling stock.

In line with the recommendations from the Scottish Taskforce^[7] for Green and Sustainable Financial Services, this report advocates the use of Green Bonds to finance purchase of the necessary rolling stock. Green bonds are an increasingly

popular way for other countries to finance long-term infrastructure and railway investments.

Using the Scottish Government's borrowing powers to issue bonds would offer better value than private financing, saving funds for reinvestment in the railway network. It would also stimulate the local economy and support a Scottish-based supply chain as part of reindustrialisation.

SCOTLAND'S LEGACY OF ROLLING STOCK PROVISION UNDER UK RAIL PRIVATISATION

While Scotland's passenger rail operator, Scotrail, has now returned to public ownership, the country's rolling stock needs are still served by a flawed model introduced under UK privatisation between 1995 and 1997. A single public operator was replaced by a fragmented network of over 100 private companies, with the ownership and control of infrastructure and assets separated from the management of passenger and freight services. Another layer of organisational complexity was added with the decision to also create three private ROSCOs. **Nowhere else in the world has a model where rolling stock is not owned by train operating companies (TOCs). The Trades Union Congress (TUC) explain how ROSCOs are:**

“A unique drain on British railway finances [serving] no function other than to drain money out of the system. A sustainably funded, integrated, railway would have complete ownership of its own trains, as is the standard everywhere in the world”^[8]

There is no logical or rational economic reason for using private financing models for funding rolling stock. The use of private financing models to fund public goods and services is based on inherently political, not economic, decisions, made to meet arbitrary Treasury rules and keep investment 'off the books'. This is a system that suits no-one other than those who are extracting profits from the rail industry (and other public services) in Scotland and across the rest of the UK.

The main arguments for privatisation came from a very abstract and simplified set of economic assumptions about competition. This is at odds with the railways being a natural monopoly and a networked system of complex logistics. From the perspective of providing best value for a vital public service – public value in effect – there have always been three compelling criticisms of rail privatisation.

1. Dismantling the unified rail system was dysfunctional.^[9] Breaking up a complex network into many independent parts increases transactions and administration costs that go with supply chain management.^[10]
2. Attempting to privatise and deregulate the railways did not deliver a more

effective and cost-efficient service but instead created fundamental tensions between the interests of private entities seeking profit and the need for the service to deliver public value.

3. Privatisation is not cheaper for the public purse. Passenger fares only cover about 50% of the costs of running railways, so some form of government subsidy is inevitable and necessary. **Under privatisation, government expenditure has actually increased^[11] with much of this revenue subsidising the profits of private (and increasingly financialised) interests rather than improving the quality of the service. A compelling counter argument for public ownership is that stemming ‘leakages’ to finance private profits, would allow more investment and increased efficiency and productivity in Scotland’s railways.**

The gradual renationalisation of elements of the railways by politicians from different political parties reflects privatisation’s flaws. The infrastructure company, Railtrack (which became Network Rail after nationalisation), was brought back into public ownership following various management failings, a series of fatal train accidents, and a litany of failings, including spiralling costs under privatisation and increasing public subsidy. Various failing TOCs have subsequently been taken into public ownership on a temporary basis, including during the COVID-19 pandemic when the ONS declared that UK rail had been effectively renationalised.^[12] The current UK Labour Government have a manifesto commitment to take all TOCs back into public ownership as franchises expire.

Despite the growing political consensus to renationalise TOC’s, there is no new legislation proposed for taking public control of rolling stock. This is surprising, given the fact that, in the words of one former UK government minister, “the amount of money disappearing into profits and dividends at the ROSCOs dwarfs what the TOCs have been making.”^[13]

When the Scottish Parliament was established in 1999, transport policy was one of the areas devolved to the new administration under the 1998 Scotland Act, although it was not until the 2005 Railways Act that the Scottish Government was given full powers over the Scotrail franchise.^[14] Despite this, there was little divergence from the UK’s privatised approach until Scotrail returned to public ownership with the termination of the Abellio contract in 2022. The Scottish Government followed the UK model of using private finance to procure trains. For example, in 2015 Transport Scotland signed a 25-year agreement to lease back trains from a special purpose vehicle (SPV), Caledonian Rail Leasing (see below).

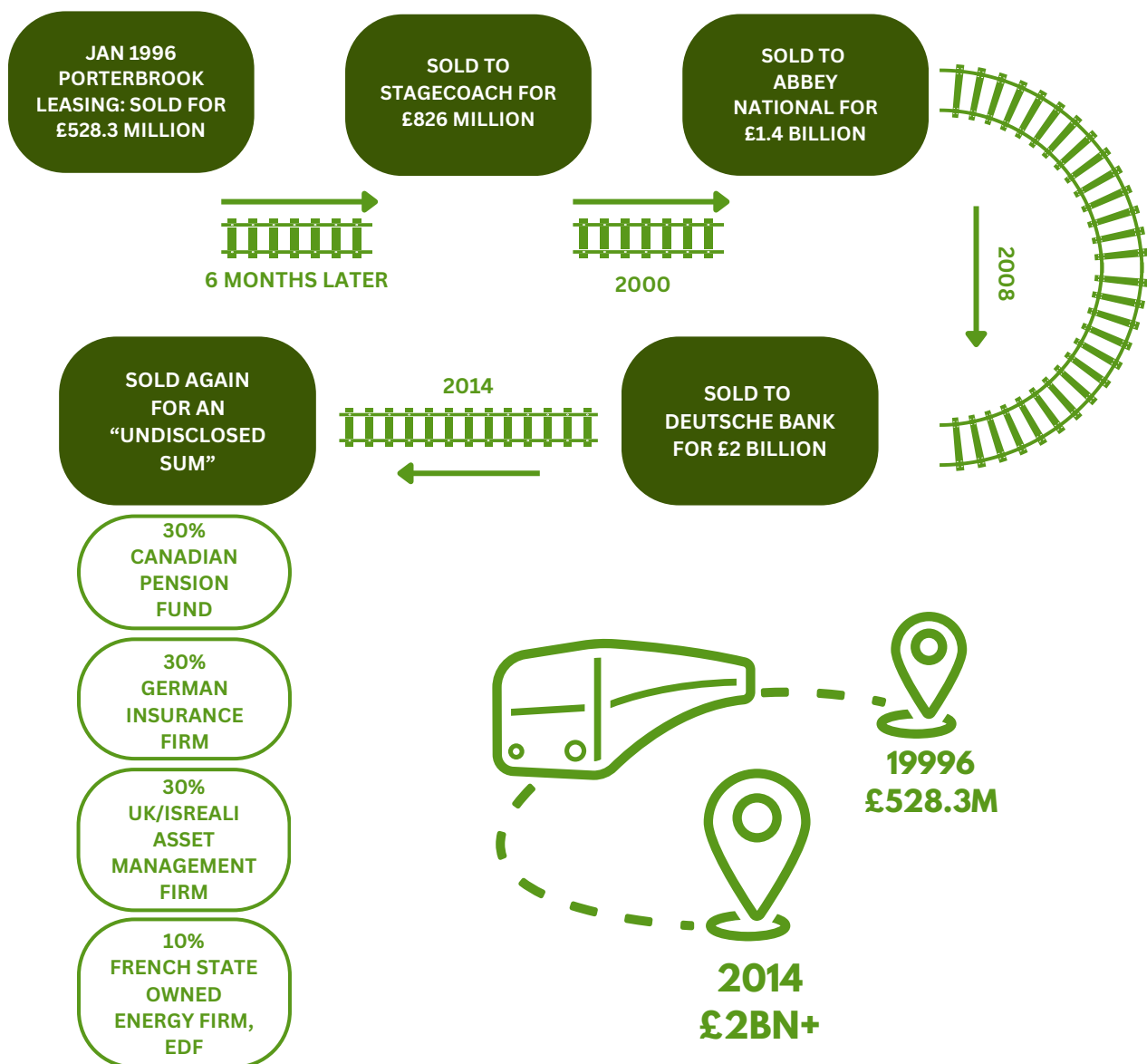
Despite ScotRail’s return to public ownership, Scotland lacks broader control of the sector needed for a post-carbon transition and economic transformation.

However, as rolling stock procurement is a Scottish Government responsibility, there is an opportunity to create a publicly owned option that provides better value for the country's rolling stock needs.

ROSCOS AS FORMS OF FINANCIAL VALUE EXTRACTION

On privatisation, the former publicly owned rail fleet of 11,250 was transferred to three new companies: Angel Trains, Eversholt Leasing and Porterbrook Leasing.^[15] In January 1996, Angel Trains was sold to a consortium, GRS Holding Company Limited, for £696 million.^[16] Eversholt and Porterbrook were sold to management buyouts, for £518 million and £528 million respectively.^[17] Figure 1 traces the sale history of Porterbrook Leasing after January 1996, and demonstrates that these initial sales did not reflect the real value of the public assets being sold.

Figure1: Porterbrook Leasing sales trajectory after privatisation



Angel and Eversholt's recent histories tell a similar tale of absorption by international banking and financial interests and, with this, extraordinary levels of revenue extraction. Research conducted by the RMT found that between 2012-18, the three companies paid out around £1.3 billion in dividends to shareholders, with almost all profit being passed on in this way to overseas parent companies.^[18]

Another element of the value extraction process is a practice whereby loans are issued between different parts of the same company, with interest rates charged, the revenue for which ultimately comes from the public purse. £328 million in interest was paid by Eversholt Investment Limited Security Group to its Luxembourg-based parent. A third element is the use of tax havens, such as Luxembourg and the Cayman Islands to avoid declaring profits in the UK.^[19] In this, restructuring themselves to avoid contributing back into the very tax system that funds our railways. It is a particularly poignant irony, and a profound injustice, that public infrastructures are used to generate private profits which are then shielded from contributing to the public good.

The more recent evidence suggests that the ability of ROSCOs to extract value from the passenger rail system has increased further over time. **In 2022/3 alone, profits tripled from £122.3 million to £409.7 million.**^[20] A recent blog by the campaigning group We Own It highlighted that in 2022 Angel Trains paid dividends of £124.6 million; Eversholt and Porterbrook paid their shareholders £40.7 million and £80 million respectively.^[21] It is not possible to calculate the proportions of these sums that originate in Scotland. Indeed, that reveals another key problem with the ROSCO model: it is deeply opaque. In the absence of full transparency, it is impossible for the public to scrutinise how much value is being extracted from public infrastructures, or to hold companies accountable for reinvestment – or lack thereof – into the network.

PRIVATISATION'S FAILINGS IN THE ROLLING STOCK BUSINESS

Like the broader privatisation programme, the main rationale for creating ROSCOs in the first place was based on some rather flawed textbook economics. It was argued that splitting up the ownership of rolling stock from the companies running passenger train services would lower barriers of entry^[22] for companies wanting to enter the TOC market.

While TOCs would have short term franchises of around 7 years, the lifespan of rolling stock is between 25-40 years. Not having to invest in their own rolling stock was therefore viewed as a key ingredient to developing a competitive marketplace for TOCs. Meanwhile ROSCOs, with a longer time horizon, would have sufficient

certainty and risk guarantees to invest in and modernise rolling stock as and when required.

At the time, the Department of Transport stated that “ultimately there [would] be no public sector intervention in [what would be a] fully competitive market for the provision of new and second-hand rolling stock.”^[23] Instead, the opposite has turned out to be the case with new public investment required to deliver new rolling stock while private company performance in this regard has been lamentable.

There are a series of fundamental failures to the privatisation of the UK’s rolling stock, which have not delivered the competition and effectiveness intended. In summary, it has created a system in which the three main ROSCOs make vast profits, dominate the market and extract considerable value, draining the public purse of vital revenues that should be used to modernise and upgrade rolling stock in the way that was envisioned when they were created.

The profits being made by ROCOS, extracted directly from rail services, is preventing reinvestment in rolling stock. According to an RMT estimate, ROSCO shareholder dividends between 2012 and 2018 would have financed the capital costs for 700 new vehicles.^[24]

ROSCOS have not invested in new rolling stock over time. The predicted investment after privatisation never materialised. Before privatisation in 1992-3, £537 million was invested in new rolling stock. This fell to £47 million in the first year after privatisation, and despite making massive profits, the pre-privatisation investment figure was not matched until 2000-1.^[25] Indeed, rather than encouraging investment, the franchising system is inhibiting it.

ROSCOs financial model means they are paid for leasing trains, not for having surplus stock and therefore have an entrenched interest only in making sure as high a proportion of their overall fleet is in use at any one time. Their commercial interest is in keeping their existing fleet running as long as possible rather than investing and they “rarely engage in genuinely speculative new build (i.e. new build [...] without a clear view regarding its future use)”,^[26] the very activity they were created to undertake, given their long-term planning horizons.

The average age of rolling stock increased from 16 years prior to privatisation to 20 years in 2017-8^[27], although new investment by the government has reduced this figure in recent years, with the average age of rolling stock in 2023 around 17 years.^[28]

This also leads to a situation where **ROSCOs sometimes scrap trains rather than absorb the costs of maintenance when they are idle**, with rolling stock coming off lease that does not have a guaranteed future use, sometimes being “scrapped rather than stored due to the high costs involved. This means there is limited available rolling stock which is off lease.”^[29] The Department for Transport also does not track how many trains are being held by ROSCOs that have not been released to train operators – leading to a situation where newer electric trains, such as Heathrow Connect electric trains, are destroyed, while much older diesel stock is still in use.^[30] Clearly, from a sustainability point of view, this is not an optimal situation and could be better managed in one integrated public enterprise that is able to store and redeploy across a national network in line with need.

ROSCOs use their market power to hike up rental rates over time due to the lack of other options. Typically, this starts with lower leasing costs at the outset in what is euphemistically known as a “short term lease premium”,^[31] which over time can rise by as much as 100% of the original capital lease rental, justified as “reflecting the residual risk arising from the uncertainty of leasing for a short period.”^[32] ROSCOs claim that this uncertainty means that they are unable to accurately forecast the “useful economic life”^[33] of trains and therefore have difficulty raising finance which in turn drives up rental prices.

The franchise system seems to involve an ‘unwritten agreement’ in the use of public funds between private actors; ‘step-up pricing’ occurs where ROSCOs will keep rentals low for TOCs during the initial franchise term with the implications that they are increased subsequently, even though they will be using older stock. Yet another perverse outcome of the existing situation that reflects not so much ‘market failure’ as the failure of ‘pure market’ thinking.

This situation illustrates both the flaws in privatisation itself but also the lack of government regulation of ROSCOs, compared to other parts of the rail industry. For example, **there is no minimal requirement to reinvest profits in new stock, which might have been viewed as sensible.** Alongside this, government guarantees underpinning the running of the railway as a public service mean that risk levels are minimal. There will always be a demand for their services. **During the COVID Pandemic, for example, when government had to step in to guarantee the survival of TOCs, given loss of passenger revenues, ROSCOs continuing profits were effectively subsidised as a by-product.**

The problem of lack of investment has long been recognised.^[34] However, rather than imposing tighter conditions and regulation on ROSCOs, governments have skirted around the flaws in the privatised model by directly intervening. Usually, this has been in the form of setting up special purpose vehicles (SPVs) for specific projects, while leaving ROSCOs to continue as before. This has resulted in new entrants to the market, although these have not broken the grip of the original

ROSCOs, which remain dominant in owning rolling stock.^[35] **60% of new trains have come through this route since 2010 with ROSCOs only contributing 28%, and 13% directly purchased by public transport bodies (e.g. Mersey Rail. TFL).**

SPVs have been increasingly used to remedy the deficiencies of the original ROSCO model. As directly tendered private finance contracts awarded by the UK Department of Transport (or other government bodies), they similarly see public wealth extracted to private profit, with little transparency as to how these contracts are awarded, and considerable scepticism of their benefits, as we report below.

FROM THE FRYING PAN INTO THE FIRE: FROM ROSCOs TO PFIs

While the weaknesses of the ROSCO model are well-known, the SPVs contain their own problems from a public value perspective. Rather than directly procuring and owning the rolling stock, governments have used a variant of the discredited private finance initiative model (PFI) to lease trains on a contract basis from private consortia.

Under these schemes, trains are ordered directly by the government, but the financing, ownership and management is left in private hands with a contractual agreement between the TOCs and private operator, which then creams off profits and shareholder dividends that could otherwise be invested in other public infrastructure.

A relevant case in point was the SPV, Caledonian Rail Leasing, created to lease trains back to Scotrail in 2015. The company is 50% owned by one of the original ROSCOs, Angel Trains (itself owned by Jersey-based investment firm Willow Topco which was recently bought by a Canadian public pensions fund) and 50% by the Japanese finance company Sumitomo Mitsui. The company has earned £15.4 million in profit since 2019 and paid dividends of over £1.1 million to its shareholders in the latest two years 2023-4.^[36]

The problems with PFI as a form of funding are well-known and long established. In 2011, a report by the Treasury Select Committee of the House of Commons noted that **a typical PFI project running over a 34-year period, including construction, management and maintenance, was likely to be 70% more expensive than if a government department had financed the project directly itself, primarily because governments can always borrow more cheaply than private entities.**^[37]

The committee found that “financing costs of PFI are typically 3-4% over that of government debt.”^[38]

Of particular significance here was the experience of Transport for London (TfL) which concluded that PFI was far more expensive and lacked value for money than options that were directly funded through their own borrowing. TfL opposed government plans to use PFI deals to replenish the rolling stock for its Crossrail project.^[39] Instead, it purchased 65 trains directly in a £1 billion deal with the manufacturer Bombardier and set up its own company Crossrail Ltd to manage them.^[40] As a comparison, the Intercity Express Programme, which procured 125 trains for the East Coast Main Line and Great Western Main Line through a hybrid PFI and dry-lease model, cost £4.5 billion^[41], costing between £2.4 and £2.8 million per vehicle.^[42]

The Crossrail project supported 760 jobs and 80 apprenticeships at Bombardier's Derby manufacturing plant and an estimated 74% of the contract being spent in the UK. It also involved the establishment of a new maintenance depot at Old Oak Common with the creation of 80 full time jobs, and 244 jobs and 16 apprenticeships during the construction phase.

DEVELOPING A SCOTTISH PUBLICLY OWNED AND FINANCED ALTERNATIVE

It is time that the conversation around public ownership and financing shifts from being perceived as a burden on the public purse, to recognise it as an important, necessary and most efficient means of delivering critical public policy goals. As we have demonstrated, public borrowing to invest in essential infrastructure such as rolling stock is far cheaper than private options and means that more of the public's money is kept in the system, rather than 'leaking out' to pay the dividends of private investors.

Reducing the revenues flowing to private profits would also allow them to be returned to the public rail network in the form of new investments, but also to lower ticket prices, develop innovative ticketing arrangements to encourage more passenger demand, and enable subsidy of lower income and more disadvantaged communities. In this sense, a public option can prioritise social and environmental needs over private wealth accumulation.

The use of green bonds as a means of borrowing to fund a new generation of rolling stock – as outlined below – is the sensible and pragmatic choice to ensure best value from public investments. Such investments should be correctly seen as public assets that create wider public benefits in terms of running essential services and contributing to tackling climate change by helping the Scottish Government meet its own climate targets.

Additionally, investment in railways has an important multiplier effect where every £1 of work on the rail network generates a further £2.50 of income in

associated industries, their suppliers, and firms supported by railway workers' wage-funded spending.^[43]

Public ownership of rolling stock would enable more integrated control across Scotland's rail network, allowing better sustainable management, while minimising waste and some of the worst excesses of the current private system. It would also facilitate the development of more strategic long-term horizons for the ordering and management of rolling stock. One important benefit would be in "smoothing demand" with train manufacturers, a problem identified by the 2011 McNulty Report and noted by the NAO which recognised that the uncertainty of demand for trains was an obstacle to delivering better public value noting that: "value for money from procurement of trains depends in part on manufacturers having greater clarity of demand and the avoidance of peaks and troughs."^[44]

It would also enhance job security in the supply chain, eliminating what one manufacturer referred to as the "feast famine" of current procurement.^[45] Having a single owner and system would also eliminate the many extra transaction costs that are recognised as one of the big failings of the current fragmented private model with many different actors and significant amounts of revenue being absorbed by paying contractual and legal costs rather than directly going into the railways.

Further, the procurement and maintenance of new rolling stock could stimulate local manufacturing and supply chains across the UK and in Scotland, supporting the 2024 Green Industrial Strategy through the creation of good, well-paid jobs across the UK and Scotland in the present and into the future.^[46] It would provide the opportunity to build on Scotland's existing skills base in engineering as well as providing new opportunities for those workers and firms transitioning from carbon-based sectors.

MERSEYRAIL ROLLING-STOCK MUNICIPALISATION

Merseyrail had the oldest rolling stock in the UK, with an average age of over 42 years^[47]. In December 2016, the leaders of the Liverpool City Region Combined Authority (LCR) gave the go ahead for 52 brand new Class 777 trains to be purchased in-house by Merseytravel.

The trains were purchased for around £460 million^[48], in a deal worth a total of £700 million, which included long-term maintenance and infrastructure upgrades.

The purchase was financed through a reserve fund which had been established for the purpose, as well as loans which the combined authority secured from sources including the European Investment Bank.^[49] Transport authority Merseytravel will own the trains and lease them to the operating concessionaire, which will be paid

a lower operating fee to account for the expected increase in revenue and lower running costs.^[50]

The cost of the trains is being recouped through a clear cost-recovery mechanism that sees benefits flowing back into the public purse^[51], rather than extracted as shareholder profit, through a leasing agreement that sees the train operating company Merseyrail Electrics Limited (MEL) fully reimbursing Merseytravel's subsidiary company MPTS the cost of the lease – making the initial capital costs for purchase essentially cost-neutral for MPTS.^[52]

Designed in consultation with the public, the electric trains were tailor made for the LCR and will see an 80% reduction in energy consumption alongside pioneering accessibility upgrades.^[53]

The deal is expected to generate around 1,000 new jobs and an additional £70 million to the regional economy each year, including through the redevelopment of rail depots that have brought jobs and apprenticeships to local people.^[54]

USING GREEN BONDS TO FUND SCOTLAND'S ROLLING STOCK

Green Bonds are a relatively recent fixed-income financial instrument specifically designed to fund projects with environmental benefits. They work like traditional bonds where an issuer raises capital from investors and commits to repaying the principle with interest over time. They provide better value than ROSCOs and PFIs/SPVs,

But the key difference is that the proceeds raised must be used for projects that contribute to sustainability, such as renewable energy, climate adaptation or clean transportation. The UK Government raised £10.5 billion in 2022/23, from green gilts and green savings bonds, showing a considerable appetite from both individuals and corporate investors for investments that are intended to help meet net zero targets.^[55]

There is a long history of governments using bond issues to fund public investment. Bonds were used in 1948 when British Railways was nationalised as part of the British Transport Commission. Shareholders were issued with British Transport Commission 3% bonds that were repayable in 1978. However, in 1978 these were then rolled over into new bonds that formed part of the national debt.^[56]

The Scotland Act 2016 devolved powers to Scotland to allow the issuing of government bonds for capital investment. Following the review of the fiscal framework, the Scottish Government's capital borrowing limits will increase with

inflation from their current levels of £450 million per annum and £3 billion cumulatively, a figure which will also rise with inflation^[57]. At the SNP annual conference in October 2023, Humza Yousaf, then the First Minister, pledged to issue Scottish Government bonds before the end of the current parliamentary session in May 2026.^[58] Given that, an estimated £1.5 billion “of capital borrowing headroom remains available for the subsequent parliamentary term”,^[59] the £250 millions of suggested green bond financing should remain well within the Scottish Government’s lending limits.

A relevant example of the use of Green Bonds comes from Germany. The German Federal Government has been issuing green bonds since 2020, with maturities of five, ten and thirty years. Germany has been increasing its issuing of green bonds, with €11.5 billion issued in 2020, €17.5 billion in 2024, and a further €13 to €15 billion expected to be issued in 2025. The Federal Government is using the funds raised through issuing these bonds for investment into rail construction, expansion and maintenance projects, and to address bottlenecks in public transport networks. In 2023, eligible federal subsidies for rail infrastructure totalled over €6.6 billion. Similarly, the Netherlands have issued over €24 billion in green bonds since 2019, with a €4.98 billion bond issued in 2023, which will mature in 2044. There are four categories of eligible green expenditures that Green Bond proceeds can be allocated to in the Netherlands, including green transportation, with the Dutch government utilising green bonds to invest in its passenger railway network.

Both of these examples demonstrate the potential of green bonds in the transport sector. While Germany and the Netherlands both have larger and more diversified economies (especially in regard to their industrial bases in high-tech manufacturing and heavy industry) than Scotland, both are high-income countries with strong trade relationships, a focus on service industries and significant investments in renewable energy. Indeed, that these economies have successfully utilised green bonds in their efforts to transition to net-zero demonstrates the importance of Scotland using the diverse public financial instruments at its disposal in its own transition.

The Scottish Government’s Programme for Government sets out four key priorities: the transition to net zero, supporting Scotland’s people, communities and environment, and growing the Scottish economy. The recently published Green Industrial Strategy has a clear overarching aim: to help Scotland realise the economic benefits of the transition to net zero. Green Bonds represent one key tool that could help deliver this, with the procurement of rolling stock being an excellent example of their potential.

The Scottish Taskforce for Green and Sustainable Financial Services has developed a recommendation for Scottish Government that specifically calls for

the use of Green Bonds to finance green projects and, more importantly, sends an important message to international financial markets about Scotland's commitment to green finance.^[60] This draws on the Scottish Government's stated ambition of accessing debt capital markets and issuing (sub)sovereign debt. The Scottish Government is currently conducting due diligence and value for money assessments around the issuance of a Scottish Bond.

The first green bond sale in the UK attracted the highest number of investors in British debt, with green bonds selling at a slightly higher price than equivalent non-green bonds which creates a small saving on the UK's debt interest. 47% of the money invested from this bond sale has been into clean transport, including the renewal of railway tracks, rail electrification, and maintenance of existing rail. However, critics have argued that the extent of the issues in the UK railway sector (outlined in the earlier sections of this report), as well as the lack of a wider policy strategy for public transport, means that the full impact of this investment is not yet being felt.^[61] By utilising green investment to disrupt the failing ROSCO model, Scotland could go some way to unpicking these industry wide issues in providing greater public benefit to the system as a whole.

Finally, utilising Green Bonds to finance the purchase of rolling stock also supports other priority agendas, including community wealth building. Institutional investors such as local authority pension funds,^[62] which are a key focus of the community wealth building agenda, could be targeted by Green Bonds. European pension funds currently have a 6.9% allocation to Green Bonds, which is the highest bond holding allocation.^[63]

There are greater opportunities available to Scotland in upgrading the quality and green credentials of new and existing rail stock. While passenger journeys are still slightly below pre-pandemic levels (at 97% relative to the end of 2019)^[64], they are steadily increasing, with the 21.8 million journeys taken on ScotRail in October to December 2024 a 4% increase on the same quarter in 2023^[65]. Taking ownership and control over rolling stock would enable further growth, capitalising on this upward trend in passenger numbers, while ensuring that services continue to meet passenger expectations and broader goals towards complete decarbonisation of Scotland's railways by 2045.

As highlighted earlier in this report, a substantial amount of ROSCO earnings are paid out in dividends: around £2 billion over the last decade, with an average annual payment of around £260 million. This is money that could be reinvested into the sector and used for long-term improvements.

In contrast, the German green bonds allocation demonstrates the advantages of a public investment model. Nearly €8.9 billion of the €9.5 billion allocated for transport in 2023 was already being directed towards sustainable infrastructure

by 2024. This allocation shows a clear emphasis on reinvesting money back into the transport system rather than extracting profits for immediate returns to shareholders. The German and Dutch approaches highlight a more forward-thinking, public-sector strategy, focused on building a sustainable, long-term transport system that benefits society. In contrast, the ROSCO model, with its focus on profits and dividends, sees money generated in the rail sector extracted as financial returns for private investors, rather than being put back into improving the infrastructure or making long-term sustainability investments. This contrast underscores the different priorities in terms of economic and social value between a profit-driven model and a public investment strategy.

A PROPOSED SCOTTISH GREEN BOND ISSUE FOR FINANCING NEW ROLLING STOCK

For its rolling stock needs, the Scottish Government could issue green bonds on behalf of ScotRail, targeting institutional investors such as pension funds but also individual savers who prioritise environmental needs. Funds raised would be used to purchase or manufacture new rolling stock, ensuring any trains meet sustainability criteria to qualify as a green investment. Part of the revenue from ticket sales and government transport budgets could be used to service the bond repayments over time.

The Scottish Government or Transport for Scotland could then transfer control of rolling stock to Scotrail, ensuring a coordinated approach to railway investment. Scotrail already has the infrastructure and maintenance in the form of depots and a workforce with the requisite skills to manage and maintain rolling stock.

Drawing upon the analysis undertaken for the House of Commons Treasury Committee into the Private Finance Initiative, **a Scottish Green Bond issue would, at a minimum, be 40% cheaper than procuring trains through the private market, based upon comparing the current cost of UK Treasury gilts with the average cost of borrowing for private capital.** This is a conservative estimate because - as we have already noted - it does not take into account that Green Bonds issued by governments are currently very popular with investors, so that the yield prices could be lower than the average UK Treasury gilt, given high demand.

For the procurement of the 69 new passenger trains for Scotland's commuter trains, there would be an estimated initial capital outlay of £250 million for a 30-year contract. At a discount rate derived from the current 30-year government bond levels (4.38% coupon rate) against the current cost of private capital in the transport sector (the Weighted Average Capital Cost) which ranges between 6.3% and 9.2% could save the public purse an amount between £144 million and £362 million in private debt repayments, depending on the exact terms of any contract

with private financiers.^[66]

In effect, revenue that could pay for 100 new trains at the upper end of the range. Even the more conservative lower range figure suggests that the cost of the public option is 40% cheaper over the life of the project.

CONCLUSIONS AND RECOMMENDATIONS

The current privatised system of rolling stock provision in Scotland, reliant on ROSCOs and PFIs, has failed to deliver public value. Instead, it has led to excessive costs, limited reinvestment in new rolling stock, and significant financial extraction for shareholder profits at the expense of public investment. The continued reliance on this model is not only inefficient but also incompatible with Scotland's net-zero ambitions and broader transport policy goals.

A publicly owned model for rolling stock in Scotland would provide significant benefits, including:

- **Better value for public money:** Public borrowing is substantially cheaper than private financing, reducing overall costs by an estimated 70% compared to private sector models.
- **Greater strategic control:** A publicly owned rolling stock company would enable long-term planning, ensuring that investments align with Scotland's transport and environmental goals, including the decarbonisation of Scotland's passenger railways by 2045.
- **Revenue reinvestment:** Instead of being extracted as dividends for private shareholders, revenue from rolling stock operations could be reinvested into improving services, reducing ticket prices, and subsidising rail travel for lower-income communities.
- **Industrial and economic benefits:** Public investment in rolling stock could stimulate local supply chains, support job creation, and contribute to Scotland's green industrial strategy.

RECOMMENDATIONS TO THE SCOTTISH GOVERNMENT

- 1** **Harness public sector expertise:** Use the skills, knowledge and expertise of the staff working at ScotRail, Scottish Rail Holdings and Transport Scotland to manage Scotland's Rolling stock
- 2** **Utilise Green Bonds for financing:** The Scottish Government should issue Green Bonds to fund new rolling stock procurement, leveraging Scotland's borrowing powers to secure lower-cost, sustainable investment.
- 3** **Reinvest public revenues into the rail system:** Ending profit extraction by private rolling stock companies would allow revenues to be reinvested into improving service quality, affordability, and accessibility.
- 4** **Align rail procurement with climate goals:** All future rolling stock investments should prioritise sustainability, electrification, and carbon reduction in line with Scotland's 2045 net-zero target.
- 5** **Support domestic manufacturing and supply chains:** Public procurement of rolling stock would allow better integration of local supply chain development and skills training to maximise economic benefits for Scotland.

By adopting these measures, Scotland can take a decisive step toward a more sustainable, publicly accountable, and financially efficient railway system, ensuring that rail transport serves public needs rather than private profits.

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