1 OF LEAKAGES AND LOSSES

The making of a contradiction

Karl Marx was correct on one point. There is a contradiction at the heart of capitalism. His error was in ascribing responsibility to private markets. Our competing hypothesis locates systemic failure in public policy.

If state investment, welfare and regulation are supposed to compensate for shortcomings in the market economy, their notable failures suggest the need for a fresh appraisal. Why, for example, has the gap between the rich and the poor, which was supposed to be narrowed by progressive taxes, not narrowed? The gap remains as large today as when the Beveridge Plan was institutionalised as the welfare state 60 years ago (Womack, 2005, quoting the results of Roberts, 2005). What has gone wrong is not *explained* by conventional analytical models, because these ignore the principles that underpin the optimisation of the wealth and the welfare of the nation. Where are the points of friction that impede the efficient allocation of resources and income?

To concentrate our investigation, we shall focus on the funding and operation of mass transit systems. We shall drill a test bore hole into the economy to scrutinise the vital core of capitalism. The efficiency of mass production was contingent on the way products were distributed when they came off the conveyor belts. By examining the way transport is funded, we magnify the structural weaknesses that compromise the operations of markets.

Despite two hundred years of advances in technology and finance, there is a serious deficiency in the supply and quality of infrastructure. Britain alone needs a huge increase in investment in infrastructure if the private sector is to meet the challenges of the globalised economy. There would be no shortage of funding if government adopted efficient methods of raising the public's revenue. The studies we discuss in Chapter 8 reveal that the increase in revenues would have been about £24 billion per annum - after retiring £37 billion of conventional taxes that are currently imposed on transport (Roy, 2005). This is part of the dividend from tax reform, the additional flow of riches that is within the nation's grasp if the British government chooses to be as financially efficient at its business (the stewardship of the public purse) as it expects the private sector to be in discharging its responsibilities. Britain lacks enough money to invest in the infrastructure the nation needs because of bad governance.

Transport is associated with problems in both the public and the private sectors. This suggests interdependence between the two sectors that cannot be resolved by a theory focused exclusively on private markets or on public goods. A more complex approach is required that integrates the two into a comprehensive model. Equipped with a richer theory, we hope to resolve some currently intractable difficulties. For example, mass transportation originated with the genius of individuals and the investment of private capital. Why, then, is there a consensus today that highways and railways cannot be profitable for private investors? This contention legitimises subsidies from the taxpayer to support private enterprise.

Our historical analysis (Chapters 4 and 6) will show that trans-

port systems *can* and *do* pay for themselves without the need for subsidies from taxpayers. This conclusion is based on a full audit of the performance of the value-adding economy. The evidence is examined in terms of policies elucidated by Adam Smith in the eighteenth century, and in particular the neglected aspects of his insights into optimum policies for funding governance and the enterprise economy.

The formative period for free enterprise was the nineteenth century. Industry operated with the minimum of intervention by the state. If the economy did not work efficiently in a legal and institutional environment that was virtually free of state regulation, macroeconomic instability cannot be attributed to direct government involvement in the way markets operate. We know that the railway industry, for example, was severely disrupted in the middle of the nineteenth century as a result of large-scale bankruptcies among banks and investors. Was this the result of a defect in the value-adding market economy, or was the state responsible by default? Did it fail to discharge its obligations to all citizens, and as a consequence favour a select minority?

To test the efficacy of public policy, we move on to the twentieth century. The unprecedented engagement of government in economic affairs in the last 60 years has failed to resolve problems that surfaced in the nineteenth century. This suggests that public policy may have been fatally flawed; if so, the flashpoints ought to attract our attention.

 In the nineteenth century, there was enormous leakage of value out of the value-adding layer of the economy. If the majority did not benefit, who did gain from the technological advances in mass transport systems? Private enterprise was viable if it could cover its costs of production from the prices that could be charged to customers. But there was one exception to the rule that people would be rewarded out of the value they added to total incomes. Parliament sanctioned the leakage as a charge for the use of land or natural resources. The law facilitated this charge (rent) as a *transfer payment*. By this term, I mean a transaction in which the rent receiver's gain was the rent payer's loss. It was not a payment for a reciprocal product or service delivered by the landowner, per se, but a mere transfer of income from one party to another.¹

If rent payments were a haemorrhage of value – a continuous leak, hour after hour – out of the possession of the investors and employees who created it, we would expect systemic crises of the kind that would one day create the demand for compensatory action by the state. This leads us to the second flashpoint.

 In the twentieth century, the state's attempts to correct social and economic problems were based on the redistribution of income through taxation. But this remedial action caused serious state-sponsored losses.

Compensatory action by the tax state – the attempt to ameliorate the human tragedies that were documented during the Victorian era – came at a price. The technical term for this price is the Social

Rent, because of its complexity, does not conform to the strict economic definition of a transfer, which is a payment for which nothing is provided in return. Our use differs from transfers in both the private sector (in which a gift is a voluntary bequest) and the public sector (such as transfers to people in need, including the disabled or unemployed). With rent, the payer receives a benefit (the services associated with the land); but the recipient of rent is not the provider of the services whose value is reflected in the value of land.

Opportunity Cost of Exchequer Funds (SOCEF). Governments raised revenue by using tools that damaged the economy, communities and the natural environment. The expenditure of money through the public sector yielded lower returns than if the money had been invested by people in the markets. What prevented policy-makers from adopting policies that avoided such damage? Did such policies exist?

In our view, these two vitriolic flashpoints – the *leakages* from the private sector and the *losses* caused by the public sector – combined to impose artificial ceilings on the productive potential of the nation.

Unbalanced books

Despite a century of democratic politics, government has not overcome the problems that are associated with the services that are essential for a highly mobile population that works in a dynamic economy. These problems are linked to the need to lock up capital in canals, roads and railways for long periods of time. Much of that capital cost is now shifted on to taxpayers. But government has not proved to be more reliable than nineteenth-century private enterprises in handling the funding of infrastructure. Furthermore, government itself is now a restraint on investment.

Orwellian language is used to disguise the sources of the problem. One example relates to the way assessments are made on whether to invest taxpayers' money. Policy-makers acclaim themselves for delivering 'value for money'. For Britain, the terms of this principle were specified by the Department for Transport in 2004. Projects with a benefit-to-cost ratio of more than 2:1 might

Table 1 Value-for-money criteria

Value-for-money category	Benefit-to-cost ratio	Prospects for projects
Poor	Less than 1	None
Low	Between 1 and 1.5	Very few
Medium	Between 1.5 and 2	Some, but by no means all
High	Over 2	Most, if not all

Source: Department for Transport, 2004: paras 15 and 31

fall by the wayside. A facility that could yield up to £2 in benefits for £1 invested by the taxpayer is rejected (see Table 1)! Private investors would flock to fund projects that would double their money. Why should government disallow projects that would yield a similar return?

When taxpayers' money is spent, allowance has to be made for 'the distortionary impacts of general taxation on the economy' (Department for Transport, 2004: para. 13). The yardstick employed by HM Treasury for the damage it causes is 30p in every £1 raised through taxes. So a benefit-to-cost ratio of 1.05:1, that is a 5 per cent return on capital, which would be acceptable to private investors, is a dead loss when taxpayers' money is invested. The minimum 'break even' return has to be 1.3:1 (a return of 30 per cent) for a tax-funded project. But this apparent balancing of a public venture's books would not eliminate the damage to the private sector as a result of the way government raised its revenue.² Distortionary taxes create an artificial barrier between people and the amenities they need. Services for which people would be willing to pay if they were delivered by private enterprise are unviable when funded by government. This explains why some projects that would yield a handsome profit to the private sector (a 30 per cent

² In fact, the damage is appreciably higher than the 3op-in-the-pound yardstick employed by the British government. See Chapter 8.

return would be welcomed as a magnificent return on capital) are disqualified when funded by taxpayers' money, leaving the public bereft of services it needs.

Government, of course, is not anxious to publicise its role as a predator. Language is manipulated to camouflage the politically sanctioned obstacles that are placed in the way of the provision of public goods. Thus, we are told that investment in transport is curbed because we live 'in a world of constrained resources' (ibid.: para. 31). Why, when we could make goods and deliver services to the point of satiation, is there a shortage when we need them? Is this claim tenable for governments that claim to operate on the basis of value for people's money? If an investment in transport can cover all its costs, why should it be denied to those who are willing to pay for it? Could this state-sponsored constraint on investment be the cause of the sclerosis that was evident in the twentieth-century economy?

But private markets did break down on a cyclical basis (Harrison, 2005). This suggests that there is something amiss with the economics of the private sector. But does this instability ultimately originate from the same source as inefficiency in the public sector? Would a single remedy resolve problems in both sectors? We shall approach this issue by asking: if the public and private sectors were meant to work in partnership in the transport sector, why is this partnership unable to deliver affordable quality services to the people who need them? Is there something defective in the financial architecture that binds the two sectors together? We shall show that the distortions of taxation are the common source of the problem. Adam Smith proposed a policy that avoided such distortions (see Chapter 5).

Postponing the future

The fate of Britain's transport networks is a cause for concern among some who work in the industry. One such person is Richard Bowker. He was chairman of the government's Strategic Rail Authority (SRA) until September 2004. He was awarded a CBE for the services he rendered to the rail industry.

In Bowker's view, the hurdles created by value-for-money assessments mean that people outside the M25 ring road which circles London can forget any meaningful investment in their regions. But could the problem be less to do with the availability of money and more to do with his claim that 'much of the theory is accepted fact'? (Bowker, 2005: 34). For example, is it empirically correct that 'Railways, as a rule, don't make money overall'? There is good historical evidence with which to challenge this assertion. From the first railway in Darlington in the 1830s to the regional railways of the 1960s, the movement of people and goods yielded returns that more than paid for operating costs and the infrastructure (see Chapters 2, 4, 6 and 8). This evidence was apparently unknown to the head of the SRA, who boldly claimed: 'In the mid-1960s, it was obvious to just about everyone that the days of railway companies making enough profit from operations to cover their cost of capital, and still return a dividend to shareholders, were gone' (ibid.: 35).

Paradoxically, this assessment would probably have been regarded as correct by shareholders at the end of the Victorian era. How can we explain this disconnection between the financial facts and the golden age of rail? Was the apparent shortfall in revenue and perpetual crisis of scores of UK and US independent rail companies due to the incompetence of entrepreneurs? Why were they not able to create sufficient value to cover the cost of

capital and pay dividends? We shall show that their financial problems were the result of leakages of value out of the hands of the inventors and shareholders who created it.

Having lost the battle to balance the books, railway operators have now resigned themselves to the role of supplicants. They turn to government for tax-funded subsidies to cover the cost of rail infrastructure. The language they use disguises the underlying economic realities, and camouflages viable alternative ways of funding the rail industry.

The Industrial Revolution delivered a new order of scale in both commerce and finance. There was a giant leap in the manufacture of products for sale to a global market of consumers. But the promise of prosperity for all was contingent on a new kind of physical infrastructure. For progress in productivity to be fully realised it was necessary for the governing class to re-evaluate property rights and public finance. Their empirical guide ought to have been the experiences that emerged in the revolution in mobility that was made possible by the canals of the eighteenth century.

Problems did not originate with the need to cover operating costs in the railway industry. Fare and freight charges, adjusted through competition, were sufficient to defray the costs of rolling stock and the wages of men to man the engines and to shovel the coal that fuelled the fires that generated the steam. The problem was with the capital that had to be locked up in the infrastructure – the land, tracks and station buildings. The failure to understand the economics of infrastructure exacted a terrible price on those who entrusted their money to capital-hungry enterprises. A classic contemporary example is the Channel Tunnel.

For nearly one thousand years the British Isles have been

safeguarded by the English Channel. The crossing by boat had been made, notably by the Romans in biblical times and the Normans a millennium later. But the White Cliffs of Dover were an effective rampart against other marauders. When Margaret Thatcher decided to breach those defences with a tunnel beneath the sea, she ruled that taxpayers should not foot the bill.

In 2004, Eurotunnel's chief executive, Richard Shirrefs, blamed Thatcher for the financial crisis that befell the Anglo-French company that owned the tunnel. It could not meet the interest payments on its £6-billion-plus debt. The reason, explained Shirrefs, was that 'She put a private company into existence which almost from day one was destined to have a financial problem. The industry model is in a state of failure. It just doesn't work, obviously' (Clark, 2004).

Investors ranged from financial institutions to a million French citizens who ended up as owners of shares in the corporation that charged rent for railway operators such as Eurostar to run their trains on its tracks.

The tunnel linking England and France was one of the major engineering feats of the twentieth century. But investors lost their savings as the value of their shares plummeted lower than the two holes through which trains now whistle back and forth. The financial disaster was inevitable because the financial architecture was inferior to the technical skills of the excavators who burrowed beneath the seabed.

Eurotunnel makes an operating profit.³ Its customers appreciate the service they receive and they are willing to pay what it costs to transport people and freight between Britain and the

³ Eurotunnel's operating profit rose to £171 million in 2004. This was wiped out by net interest charges of £298 million.

Continent. But market prices could not deliver sufficient revenue to repay Eurotunnel's capital debt. The reason they could not do so is testimony to the *success* of market processes. Competition from sea-borne traffic and low-cost airlines prevents Eurotunnel from exacting a monopoly price for its service. If it had been in a privileged position to do so, it could have covered the cost of capital. But even so, does the tunnel create sufficient additional value — the rents that are not captured by Eurotunnel's prices — that at least equates with the costs of capital?⁴

Why were the French and British governments emphatic that the tunnel had to be funded by the private sector? One reason flowed from another piece of conventional wisdom. Bowker (2005: 36) expressed this in terms of the need to ration the use of taxpayers' money. The pressure on government to control its borrowing arose because 'there simply isn't the money, so the capital is rationed. Techniques exist to ration this capital on an economically rational and equitable basis'.

The techniques for rationing capital, while they may be arithmetically rational, are certainly not administered in an equitable way. If we are correct – if amenities like railway systems are self-funding – there is little sense in the claim that the money does not exist to provide the infrastructure we need (see Box 1).

It is true that governments cannot satisfy all the demands that are made upon them. Special interest groups constantly increase the burdens on the state budget. The outcome is financial stress.

Rent is generated by (i) nature (for which there is no social cost: as with fish in the sea, coal beneath the ground, which are 'freely provided by nature'); (ii) the community (as in the locational decisions that people collectively make on where to live and what to invest in their communities); and (iii) private activity (as with the individual who devised the Internet, which gave added rental value to the radio spectrum).

Box 1 The Crossrail conundrum

The confusion in the language and theory of public investment is illustrated by London's Crossrail project. The benefits eclipse the costs of this proposed railway linking west with east London by a ratio of 2:1. 'Fabulous!' exclaimed Richard Bowker. 'So why haven't we done it? Because ten billion pounds, after adjusting for risk, is a heck of lot [sic] of money and big decisions take longer. Apparently.'

With funding spread over the years of construction, £10 billion is a trivial sum in relation to the benefits that would accrue to the London economy. And as for the delay in making a decision, London's need for Crossrail was identified as early as the 1940s! The failure to build it has nothing to do with the speed with which politicians can make decisions. The problem is with the methodology employed by transport planners. But this methodology is biased to accommodate flaws in some of the buttresses that support capitalism.

Governments that cannot fund current spending commitments out of tax revenue resort to borrowing. This compromises the operational efficiency of the economy. Borrowing to spend on ballooning welfare demands crowds out borrowing for investment in infrastructure. Indebted governments cannot default on their debts, but they can erode the value of the currency by printing more notes.

Today, to postpone inflation and secure the appearance of prudence, the Treasury encourages the funding of public projects out of private finance. In many cases, it now transpires, these are

Box 2 The capital costs of transport

The Corporation of London's Economic Development Office reported that 'transport has emerged as the No 1 concern of City businesses, irrespective of the topic actually being researched'.* Oxford Economic Forecasting (OEF) estimated the effects of the dilapidated transport systems that existed in the capital in 2002. Depending on the values placed on a person's time, OEF conservatively calculated that delays in travel cost £230 million every year. Adding the cost of the leisure time of city workers raised the loss to £575 million.

In 2003, when Mayor Ken Livingstone was granted control of the capital's Tube, his Transport for London defined no fewer than 20 major transport schemes. When in place, the new bridges, roads, trams and trains would equip the capital to take on all comers. But according to Transport Commissioner Bob Kiley: 'There is not one project that people have heard about in this town that will happen right now, because they are not funded. Not one of them.' He warned that years of neglect of the capital's infrastructure required a catch-up strategy costing an additional £900 million every year.

But instead of raising investment, the government proposed to spend less than was required. Kiley noted: 'Bizarrely, its grants are to be reduced by £1 billion over the 2004–10 period. The result will be more congested roads, greater overcrowding on the Tube, a decline in bus use and an overall fall in service reliability.' †

^{*} City Research Focus, Corporation of London, London, October 2003, p. 5.

[†] Bob Kiley, 'London's route to better transport', Financial Times, 3 December 2003.

not legitimate 'off balance sheet' projects for the public sector.⁵ The arbitrary manipulation of statistics in the national accounts, however, does nothing to overcome the shortfall in the funding of infrastructure. In the transport sector, policy continues to shortchange travellers and the businesses that require efficient modes of communication (see Box 2).

The doctrine of market failure

Transmission mechanisms that link private enterprise with infrastructure need to be synchronised. The financial causeways suffer from sclerotic blockages that impede the flow of the information that is required to ensure optimum efficiency. One victim is the pricing mechanism, which is the market's information highway. It is a conduit that cannot operate effectively while taxes are loaded on to product prices.

Governments advocate the need for sustainable solutions, but no fundamental changes have been introduced to justify the claim that they are more efficient than the private sector at delivering the projects that people need. This is not for want of knowledge that comes from large-scale social experiments such as changes to the ownership of Britain's rail network.

From their origins as private enterprises in the nineteenth century, railways capitulated and were nationalised as British Rail in 1948. They were then reprivatised in 1993 under the umbrella

⁵ The Office for National Statistics (ONS) initiated research to identify capital expenditure undertaken under the Private Finance Initiative (PFI) which ought to be included in public sector net debt figures. By the end of 2004, PFI projects were valued at £42.7 billion. The ONS was reported to be considering the reclassification of 57 per cent of these projects as 'on balance sheet' because little risk had been transferred to the private sector (Giles, 2005).

of Railtrack, which owned the infrastructure. The great restoration failed. The financial model on which they operated had not matured sufficiently to detach them from the milk that flowed from the bosom of the taxpayer. Railtrack was forced out of the private sector and into the hybrid not-for-profit Network Rail. This continues to receive tax-funded subsidies to cover capital costs. Far from this being the end of the line, we suspect that the rail industry has been parked in a convenient siding while planners consult their crystal balls.

Progress is, however, unlikely until we understand the dynamics of the implosive process that is built into the economy. As population increases and expectations rise, governments are even less able to cope with the demands upon them. The result is a continuous deterioration in their ability to maintain the required levels of investment, a situation that is periodically 'corrected' in response to explosions of social discontent. There are two aspects to this process, that of *under*-investment in the right places and *over*-investment in the wrong places. Both stem directly from the leakages-and-losses nexus.

The future is being compromised by under-investment. A continuous process of contraction is at work in which the social space we inhabit is systematically impoverished. One measure of this under-investment has been offered for Britain by Rana

⁶ Network Rail reported an improvement in its financial performance in 2004/05, as well it might with the benefit of what the Guardian (27 May 2005) called 'the whirligig of subsidies'. About 54 per cent of Network Rail's turnover of £3.8 billion came from direct government grants and revenue from the franchise rail operators of £1.4 billion, part of which was subsidies from the public purse.

In June 2005, Network Rail was criticised by the chairman of the Office of Rail Regulation for under-spending nearly £1 billion; the money had been allocated to upgrade the rail network. Chris Bolt wanted 'to make sure ... that Network Rail is not storing up problems for the future' (Clark, 2005).

Table 2 Diminishing expectations: UK trunk road plans -

-	Number of proposed schemes	Cost (£ billion)	
1989	500	17	
1994	400	24	
1995	300	16	
1997	147	6	
2000	21	?	

Sources: House of Commons Transport Select Committee (2003: 5); Department of the Environment, Transport and the Regions (2000)

Roy. Examining the record of the last 20 years, he found that the downward trends in public investment had not been reversed by the Blair government since 1997; on the contrary, he highlights 'a near-continuous decline in net public investment' (Roy, 2003: 6). The annual shortfall in the years under New Labour was something like £7 billion compared with the previous decade. Transport policy reflects the financial logic of the system. There remains a clear gap between declared intentions and the plans to deliver investment in infrastructure. This is suggested by the diminishing expectations in the sphere of trunk roads (Table 2).

Motorists are bewildered by the indecisiveness over plans for highways. Environmentalists might favour the explanation that the decline in the number of proposed schemes is driven by a heightened sensitivity to the nation's ecology, and the determination to shift people and goods on to railways. That thesis is not plausible when viewed in terms of the chaos in the planning system (see Chapter 2). The diminishing expectations can be explained by the propensity to under-invest as a result of

⁸ The decadal trends in capital formation in the construction sector, which appear to be tied to the fortunes of the business cycle, are reviewed in Harrison (2005: 133).

the dynamics of the leakages and losses that flow from the tax system.

Complementing the under-investment is the over-investment in the wrong locations. The starting point is the government's tax bias against investments that people most need. Projects that are designated as of low and medium value are unlikely to receive funding (see Table 1). That decision *appears* to be in the taxpayer's best interests: money is directed at projects that yield the highest benefits. In fact, the reverse is just as likely to be the case.

Projects that just cover their costs may serve to raise the average rate of return across the economy. This happens when a project supports existing infrastructure, enhancing the use of capital that is already invested. A local economy may not generate super-profits, but it *may* fulfil people's needs, and might do so even more successfully with added layers of investment. But improvements to infrastructure may not be bolted on because the ratio of benefits to costs is insufficient to leapfrog the obstacle created by the government's 30 per cent tax hurdle.

The tax bias favours mega-projects that yield super-profits. A return of 2:1 flows from gigantic investments on low-cost sites that tend to be at a distance from where people live and work. This is why house builders, for example, prefer to develop greenfield sites outside towns, where the rate of return is far higher (because costs are lower) than for construction on reclaimed sites. Across the nation's existing stock of capital, however, average rates of return may be reduced because of under-used investments. The losses arising from the under-use of resources are not reflected in cost—benefit analyses.

A prime example is the government's propensity to support urban sprawl with infrastructure that dilutes the efficiency of capital across the nation. Sprawl is driven by the speculative pursuit of windfall profits – that part of transfer payments which is capitalised into the selling price of land. The supply of capital, if it *does* fall short of demand, is made even scarcer by being sunk into under-used transport systems in thinly populated or inappropriately located communities (such as 'dormitory towns'). The investment ought to be concentrated in locations where it would yield the maximum private and social returns while conserving the ecology of economically marginal territories.

The cultural consequences of this process are explored elsewhere (Harrison, 2005). Here we note the economic impact on communities on the spatial margins of society. Instead of increasing the value of existing infrastructure in the relatively lower-productivity regions (where the benefit-cost ratio may be little more than 1:1), the tax bias encourages government to favour high-profile projects serving the centres like London, where the ratio is likely to be 2:1. This under-investment damages the quality of life in peripheral locations like the north-east of England, or Scotland, inducing out-migration that impoverishes the communities that suffer the exodus and overloading the centres that attract people they cannot affordably accommodate. In other words, fiscal policy encourages leapfrogging investment instead of renewing existing communities. The pursuit of capital gains from land (the result of the 'free rider' problem; see Chapter 3) is encouraged by the under-collection of rent from land and the

Indeed, government itself is responsible for such sprawl. A case in point is the proposed Thames Gateway development of tens of thousands of houses east of London, allegedly to provide affordable homes for 'key workers' who have been priced out of the London housing market. To make green fields and marsh lands habitable, a vast amount of taxpayer-funded infrastructure will be invested in outlying areas in which the social returns are below what they would be if the capital was invested in places where people wanted to live.

over-taxation of wages and interest generated by people and their savings. This discourages investment in capital formation in value-adding enterprises by channelling savings and bank credit into property and financial speculation.

Solutions exist. We can reasonably expect a reform agenda to emerge once people understand that it is possible (*inter alia*) to make trains, planes and automobiles operate on the basis of paying their way in the world. But the willingness to entertain changes will probably not arise until government, Parliament and the community of experts who advise policy-makers can come to terms with the conceptual and methodological flaws in the tools they use to guide the economy.

Remedial action is urgently needed. The evidence that we present is tantamount to an indictment of government. Statesponsored damage by taxation is far worse than the Treasury acknowledges. The 30p/£ ratio (30 per cent) is at the very low end. Economists have offered estimates ranging from 50 per cent to 150 per cent. If we split the difference as a rule-of-thumb guide (100 per cent), government-funded investments need to generate benefits of more than 2:1 if the damage caused by taxation is to be offset. This places an almost impossible hurdle in the way of investments that the economy needs when funded through the public sector. And yet, HM Treasury fails to measure the impact of its policies on the economy. In answer to an enquiry about the 'excess burden' of its taxes, the Treasury replied: 'The Treasury does not hold any unpublished studies, working papers or any other

¹⁰ I owe this to a personal communication from Nicolaus Tideman, professor of economics at Virginia Polytechnic Institute and State University, Blacksburg, Virginia. His work on deadweight losses is reviewed in Chapter 8.

This is the technical economic term that economists use to measure the disincentives stemming from taxes which affect people's behaviour.

documentation on the way excess burden estimates are calculated, as you have suggested. Particularly, it would not be the Treasury's role to calculate these.'12

Estimates of deadweight losses, notes the Treasury, 'are not very reliable'. And yet, the Treasury declines to improve the estimates so that it can select policies that deliver value for money to the people who pay taxes. Is the Treasury under such an obligation? One would have thought so, for (the present author was informed by the Treasury):

Although raising revenue is the primary aim of taxation, the Government also has a duty to consider that the taxation system is not wholly neutral, for example, in the context of addressing market failures. How and what is taxed sends clear signals about the economic activities which governments believe should be encouraged and discouraged, and the values they wish to entrench in society.¹³

Thus, while government re-engineers people's lives, it confesses to using taxes whose impact on those lives it does not fully understand, and for which it declines to accept responsibility. The democratic principle of accountability requires a finance ministry to measure the way its actions affect people's lives. This would reveal means of funding investments which do not create distortions in the first place.

The negative impact of taxation is not only at the heart of the crises in transport but within society and the economy as a whole. To prescribe new strategies for the future, using transport as our case study, we must revisit the canal and rail failures of the past.

¹² E-mail to Fred Harrison from John Adams, Correspondence Manager, HM Treasury, 13 June 2005.

¹³ Ibid.