5 THE RENT-OPTIMISING GOAL

The dynamics of location

Inefficient ways of funding transport reduce the productivity of firms and discredit governments. A comprehensive framework is needed within which to locate the damaging spillover effects. The classical economists provided a model of the system at work that became the core of the science of political economy.

Adam Smith (1776 [1981]) provided the template for analysing the emerging industrial mode of production. He disaggregated the producers of wealth into three factors: land, labour and capital. Their shares of the nation's income were classified as rent, wages and interest. Land was plausibly treated as a contributor to wealth because nature's fertility played a role in the output of employees and capital. In that sense, land 'earned' the rent that was attributed to it. The variations in rental payments by tenant farmers were said to be due to variations in the fertility of the soil. A natural law was at work, based on the reproductive capacity of land. This did not mean that the people who possessed the title deeds to land had *earned* the rent. In any event, this portrait of the natural economy provided a satisfactory model for analysing the production and distribution of income that existed in the second half of the eighteenth century.

A more complex analytical framework was needed for manufacturing. The three-factor model was insufficiently elaborate to highlight important features associated with the concentration of people and capital in confined locations.

Land was of diminishing relevance in terms of its fertility. Now, *location* emerged as paramount. Nature played a lesser role except in so far as she freely provided the land and natural resources that were needed.[1] No longer could rent be configured almost exclusively in terms of fertility. A new way of characterising these payments was required.

Today the claimants of rent base their demands not on the argument that they create wealth, because – qua landowners – they do not do so. Their claim rests exclusively on ownership of title deeds. The law sanctions the payment often on the basis of the outcome of the struggle for power in the age of feudalism.[2] In the meantime, however, the significance of land in particular locations changed rapidly in response to the new demands people made on their communities. Government, as well as enforcing law and order and defending the realm, assumed responsibility for public health. With so many people migrating out of the countryside and coalescing around factories and mines, it was necessary to invest capital in new systems for the delivery of water, energy and waste disposal. Those resources had to come from somewhere.

After Adam Smith, David Ricardo (1772–1823) explained why funding could come from one source only: the rent of land. *Rent*

1 Agricultural land did continue to operate as a device for transferring income. Among all OECD countries, the subsidies to agriculture in 2004 totalled nearly $380 billion. The European Union privileged its food producers with $133 billion, which was more than 40 per cent of the EU budget (Williams, 2005).

2 Lawyers correlate rent to shares in the 'bundle of rights' associated with land. It is these rights which are owned, not the land itself.

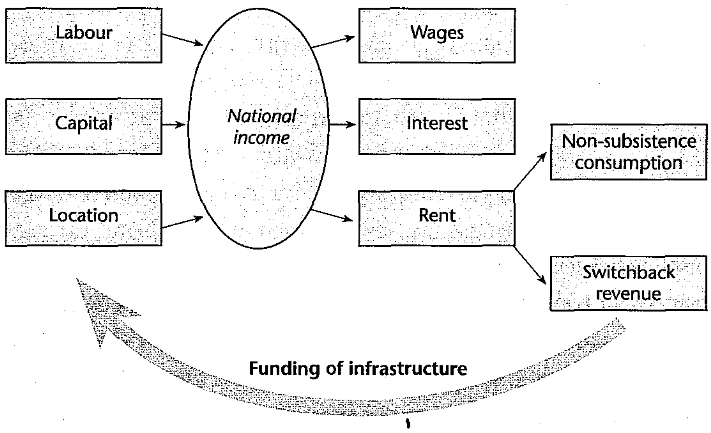
was the measure of the taxable capacity of the economy. A switchback mechanism was needed in the financial architecture. The smooth distribution of income to fund intensive investment in the community's infrastructure was vital if Britain were to enjoy to the full the new age of abundance.

It was necessary to redefine land. We may use the concept of *location* to represent the way in which people choose to share services in common. These services, when combined with labour and capital, improve the productivity of the economy and the quality of people's lives (which, of course, enhances their productive capacities). Location was the point at which people were able to express the sum of the value of the services that met their needs. The public space became operationally central to the market economy's ability to realise the potential that was made possible by scientific and technological progress and the commercial scale on which people operated.

Income is still divided between wages, interest and rent (Figure 1). Rent is retained because it represents the value commanded by each site. But the financial needs of the new economy meant that rent ought to have been subdivided into two categories.

- Part of rental revenue needed to be switched back into infrastructure. This is the price people were willing to pay for the benefits received at the locations they occupied.
- The remainder of rent could be devoted to non-subsistence consumption. In the historical conditions prevailing in the late eighteenth century, it was not politically practical to capture the whole of rent to pay for public services (to do so would have entailed the abnegation of the landowners who dominated Parliament). So part of it would flow to the

Figure 1 **The social model of production**



owners of land as a transfer payment. As such, it would fund their private conspicuous consumption.

Thus, there was the price of labour (wages), the price of capital (interest) and the aggregate rental price of the cumulative benefits that were accessed in particular locations.

Rent is the surplus net of taxes which is capitalised into the selling price of land. It is symmetrical to the value of the benefits that people receive. These benefits are complex, but the market enables people to put a price on them. Rent reflects the exhaustible resources provided by nature (topsoil, fish, minerals), inexhaustible resources provided by nature (location, the frequency spectrum), value generated by infrastructure (such as railways) and the value generated by private activity (for example, the ingenuity of George Stephenson, who invented the steam engine for use on wheels, which increased the productivity of everyone in the economy).

The economic language for this approach was not elaborated in our terms by Adam Smith. Even so, our formulation is consistent with what Smith recommended. His principles of taxation *would* have delivered the switchback mechanism. He commended the land tax. Smith and Ricardo understood that this would deliver price stability. Unlike taxes on labour and capital, public charges on the rent of land are not incorporated into unit prices and passed down the chain to fall on consumers (Ricardo, 1817: chs. 10 and 12). *So the price of goods retailed in the markets reflects the labour and capital costs of production, but not the location attributes of land.*[3] This ensured that the ideal fiscal system was consistent with the market economy.

Understanding the role of rent and location was central to progress. The theory of rent was deepened by Ricardo in terms which, had it influenced public policy, would have enabled the capitalist economy to function more efficiently. The key was the recommendation of a modernised land tax. Parliament did not act on this advice.

Ricardo's work has been criticised for employing an agricultural model. In fact, while he did emphasise the 'original and indestructible powers' of land, in Chapter 2 of *On the Principles of Political Economy and Taxation* (1817) he also alerted readers to a further distinguishing characteristic. Some sites 'possessed

3 Ricardo (1817: ch. 11) was emphatic about the significance of the discovery that 'rent does not and cannot enter in the least degree' in prices. In a footnote, he stated: 'Clearly understanding this principle is, I am persuaded, of the utmost importance to the science of political economy' (p. 40).

peculiar advantages of situation', while others were 'less advantageously situated'. Location was made explicit as a variable, one that would assume increasing importance as people and capital accumulated in the great centres of manufacturing and trade such as Birmingham, Manchester and Glasgow.[4]

Smith and Ricardo identified a conduit for recycling value back into funding the nation's shared services. Part of that value was the result of infrastructure. This became a new claim on rents. The land market afforded the mechanism for concentrating, measuring and reallocating the rents. The institutional framework was in place to serve the economy. But in accounting terms, too many books were not being balanced. The partnership that ought to have emerged to synchronise the public and private sectors did not come into play. Are we living with the consequences? Can the great economic dislocations of the nineteenth century be traced to the failure to connect the junction boxes linking the nation's income to the factors that produced it? One thing is certain. Now, in the 21st century, policy-makers are struggling to develop hybrid models of the market–state partnership. This is illustrated in the transport sector. Can the hybrids neutralise the leakages and losses of the past? Or are they also doomed to failure?

'A peculiar tax'

Capitalism triumphed over communism in the 1980s, but within a decade the philosophy of market economics was once again challenged, this time from within. People who did not associate

4 Ricardo (1817) discusses Smith's treatment of location in *Principles*, ch. 24 (p. 198).

themselves with socialist doctrines held the market responsible for social and ecological problems. To test the validity of this censure of market economics we must return to Adam Smith.

Smith knew that if the division of labour was to work to everyone's advantage the appropriate institutions had to be constructed. The genius and commitment of the individual would have to be partnered with corresponding laws and social processes. His vision of the inclusive community embraced everyone who wanted to earn a living. Poverty would not be institutionalised. Smith elaborated a theory of a moral society that integrated politics and ethics with economics. He elegantly synthesised competition and cooperation so that everyone who contributed to the wealth of the nation was a beneficiary:

- *Competition* ensures the swiftest route to optimum efficiency. Unit costs of labour and capital are equalised as scientific and technological progress increases people's productive capacity.
- *Cooperation* ensures that the net benefits of the competitive spirit are equalised across the population. Increasing productivity reduces the inputs needed to generate incomes, delivering rents that could be used to pay for shared services.

The benefits people receive from the community have been called the 'social wage'. Thus, we see the genius of Smith's model. The specialisation of labour does not lead to the division of the community. Increasing prosperity would be grounded in the unity of cooperation and competition; these were made to intersect harmoniously by synchronising the public and private sectors. This outcome was contingent on funding shared services out of rents. Since rents (generally speaking) were not earned by any one person, everyone would enjoy the gain through the expenditure of rents from the community chest.[5]

The labour theory of value was morally significant in Smith's vision. Value was thought to be contingent on the expenditure of labour; labour thought to be the moral basis of rights to the product of one's work. From this, it followed that claims to a share of the wealth to which one has not contributed are ill founded. A person cannot be – or rather, *ought not to be* – separated from the value that he or she creates. Exchange is based on like-for-like value, as perceived by those engaged in the negotiation. Thus, while wages and the returns on one's savings remain in private hands, rents were the legitimate source of public revenue.

Smith's principle on rents as public revenue was not an optional extra to be bolted on to the market economy. Enterprise – through competition – systematically generates the conditions in which part of the wealth of the nation is forced out of the labour and capital markets. That value then cascades down to be collected as rent, distributing itself in proportion to the variable qualities of location, soil and other natural and social attributes. Through the national exchequer, that rent may be reintegrated into the community for the benefit of everyone. Smith was emphatic: rents were 'peculiarly suitable' for defraying the expenses of the state: 'Ground-rents, and the ordinary rent of land, are, therefore, perhaps, the species of revenue which can best bear to have a peculiar tax imposed upon them' (Smith, 1776 [1981]: 844).

The community and the economy that he visualised would

5 We acknowledge the role of the individual in the production of rental income, as in the seminal case of George Stephenson's impact on land values in the north-east of England. Did he and his shareholders, those who invested their savings in his railway, have a direct claim on rent? See Chapter 6.

Box 5 **The sin of omission**

Markets are the sum total of individual interactions that lead to the production, distribution and exchange of wealth. The processes that facilitate this economic behaviour are based on two sets of rules. The first flows from the nature of humans (such as the propensity to satisfy our needs with the least possible exertion). The other is composed of the laws and institutions that facilitate human propensities. If there are impediments to the efficiency of markets, these tend to be in the laws that frame the markets.

The doctrine of market failure needs to be challenged for reasons beyond semantics. Economists colour people's political views by appearing to attribute serious and protracted problems – such as poverty – to market failures. In fact, poverty is offensive to the market system, which requires 'effective demand' to make the exchange of goods and services possible, The larger the demand, the more efficient the economy and the greater the rental surplus.

The land market is cited as a classic case of so-called market failure: 'Land use decisions are superimposed on a settlement pattern based on massive market failure in land. The phenomena rather imprecisely called "land speculation" and "absentee ownership" betray market failure; and no one disputes there is massive regulatory failure in pricing and subsidising transportation, which in turn determine land rents and values. Result: the land market is not efficient; land is not properly priced and allocated to begin with.'

But this inefficiency does not stem from the intrinsic logic of markets per se. The description is by Mason Gaffney (1988: 133–54), who acknowledges that the failure is linked to 'public programmes and perverse incentives ... [and] the quest for unearned increments to land value'. Unearned increments offend the principle of exchanging value added to the economy through enterprise. Correctly analysed, failures are the result of sins of omission by government.

need government, which had to draw its resources from somewhere, but which should not do so in a manner that interfered with people who work, save and invest.

A public charge on the rent of land was an ancient doctrine that happened to fulfil the norms of efficiency in a market economy. And so, in an age of radical intellectual accomplishments – in which scientists and engineers were transforming abstract ideas into practical solutions for the creation of wealth at a wondrous rate – Smith held firm on the need to be conservative in his doctrine of governance: 'Nothing can be more reasonable than that a fund which owes its existence to the good government of the state, should be taxed peculiarly, or should contribute something more than the greater part of other funds, towards the support of that government' (ibid.: 844).

The recommendation was not adopted. This led to economic crises that are now rationalised by the doctrine of 'market failure' (see Box 5). The outcome was the resort to non-market solutions to fund the infrastructure that made the state viable. Does the state now need to rescue itself by belatedly resurrecting Smith's model of governance?

All roads lead to Rome

Ours may be the age of virtual reality, but conventional modes of transport will continue to be vital to the future of the state. But the best-laid plans are worthless if the resources are not available to fund them. A curious feature of the transport industry is its pessimism about being able to pay for roads and railways. The House of Commons Transport Select Committee (2003: 56) framed this message of despair in these terms:

> However, even if all the local transport schemes offered value for money they could not be afforded ... It is inevitable therefore that fewer public transport schemes than proposed will be implemented. This means more journeys will be made by car and congestion will rise, particularly in the city areas where these schemes would be most effective.

If transport schemes are of the value-for-money kind, why is it not possible to harness that value to pay for the schemes? The MPs did not address this question, but this was not exceptional. The Department for Transport is similarly afflicted by the despair. It paid consultants to elaborate schemes which could 'not be afforded within the 10 Year Plan budget, despite this being the intention of the Plan' (ibid.: 56).

It is difficult to believe that the apparent ineptitude displayed in the transport sector can be attributed purely to administrative incompetence.[6] Persistent failures suggest the probability of a flaw in the philosophy of transportation.

State planning has detached transport from its spatial and financial underpinnings. In a complex commercial society, transport needs to be integrated into its web of interrelationships, the ordering of which requires a sophisticated and flexible decision-making process. Planning methodology necessarily retreats to simplifications that do not adequately reflect economic realities,

6 Incompetence may be attributed to individual projects. This would appear to explain the expensive failure of Britain's west coast mainline upgrade, which was supposed to cost £3 billion but would cost £10 billion by the time the work was completed – and even then, the track would not be able to take the high-speed trains for which it was supposed to be constructed. What he calls the incompetence, greed and delusion behind Britain's biggest single infrastructure project was documented by Meek (2004).

and political decisions cannot keep pace with people's changing aspirations. The ligaments of the sophisticated system are to be discerned in the transport philosophy of the Roman Empire.

If the Romans did not have a coherent philosophy of transport, they successfully acted as if they did. We know that, logistically, they could build fine highways, but this was just one element of a triadic system of circulation that advanced the imperial project.

Highways had to serve a *military* purpose. The physical structure and spatial orientation of the roads had to fulfil two purposes:

- *Minimum mobility costs*: the rapid movement of soldiers around the territory at the least possible expenditure of human energy.
- *Maximum defensive postures*: an army marching through exposed terrain is vulnerable to bends (around which nasty surprises might lurk). Elevation prevents hostile forces from looking down on the legions. Roads, consequently, were straight, and configured to hug the high ground.

Highways also had to circulate *information*. The postal network was crucial if the political centre was to retain direct control over extensive territories. The average distance achieved by the postal service was 50 miles per day.

Highways, however, could not be treated as separate from the *financial* system. How were the roads to be funded? Their solution: *out of locally derived rents*. This ensured that each section of the highway was self-funding, and therefore not a burden on the imperial centre. The roads were designed to provide a measure of distance, and to serve the mutual interests of farmers and the state. Improved access to markets increased productivity. Farmers also benefited by 'letting some parts of the estate out to tenant farmers and pocketing the rents' (Wilkinson, 2001: 52). Roads were also used to provide the measure of land that 'could be beneficial when it came to levying taxes, which were often based on the area of land held by the locals' (ibid.: 92). This was the world's first integrated transport system. The level of integration provided access to markets in regions that would otherwise be inaccessible, and was financed in a way that would not be a fiscal burden on the Roman economy.

By acting locally, Rome found a way to construct a global transport network that is admired to this day. The highways stretched all the way from Hadrian's Wall in the north of England through continental Europe to Rome itself. And we, it appears, after 60 years of fruitless searching, are not able to find a solution to funding Crossrail to bisect 20 miles of London.

Markets as society's mediator

Transport planners confess that they lack a theory that integrates transport with the economy. This void achieves embarrassing proportions with confessions in their literature. Adam Smith, on the other hand, did elaborate the elements of a coherent philosophy of transport. These appear in the lectures on jurisprudence he delivered at Glasgow University. If his economy was constructed on the division of labour, the foundations were cemented into the theory of rent and public finance.

Gains from the production of wealth were contingent on the size of the market, which determines the degree to which people could refine their skills. The division of labour 'must always be proportioned to the extent of commerce. If 10 people only want a certain commodity, the manufacture of it will never be so divided as if a thousand wanted it'. The size of the market, in turn, was contingent on transport. Smith (1766 [1982]: 494) noted in a lecture:

> Again, the division of labour, in order to opulence, becomes always more perfect by the easy method of conveyance in a country. If the road be infested with robbers, if it be deep and conveyance not easy, the progress of commerce must be stopped. Since the mending of roads in England 40 or 50 years ago, its opulence has increased extremely.

Moral sentiments were not in conflict with economic efficiency. It was, Smith specified, essential that the price of labour should be sufficient to enable people to participate in production. Wages had to provide people with sufficient subsistence to maintain themselves and their families, and to cover the costs of education and health (ibid.: 575). Smith did not see any contradiction in fusing normative with positive statements – if the purpose of economics as a science was optimal outcomes. Commerce *could* operate efficiently to enable people to meet their material needs in a way (for example) that would obviate demands for a welfare state. But, he noted in an early draft of *The Wealth of Nations*, the market price for labour was contingent on there not being 'some great error in the public polic[y]'. Taxes levied on industry were a policy error. They obstructed 'a natural balance of industry [which] tends to break this balance [and] tends to hurt national or public opulence' (ibid.: 575). Bounties levied on the manufacture or export of goods had this effect. The way in which taxes damage productivity and therefore the circulation of goods was illustrated by reference to the era of horse-and-carts, but the causal connections remain valid for the age of jet travel:

> Of the bounty upon corn. That it has sunk the price of corn, and thereby tends to lower the rents of corn farms. That by diminishing the number [of grass farms], it tends to raise the rent of grass farms, to raise the price of butcher meat, the price of hay, the expense of keeping horses, and consequently the price of carriage, which must, so far, embarrass the whole inland commerce of the country. (Ibid.: 575)

Smith's model is completed by his treatment of the way in which the state raises its revenue. Public charges on rent do not raise prices or distort investment and production:

> Ground-rents are a still more proper subject of taxation than the rent of houses. A tax upon it would fall altogether upon the owner of the ground-rent, who acts always as a monopolist, and exacts the greatest rent which can be got for the use of his ground. (Smith, 1776 [1981]: 843)

Politics, in this model, complements economics, because of the way in which government raises revenue. Rent is the fulcrum point of the system. The land market is the mechanism that mediates between transport services and the competing uses and the preferences of users. The textbooks of 40 years ago, published as the planners were getting into their stride, were explicit on this:

> Because of the profit nature of their business, because of the travel time reduction, and because of a reduction in motor vehicle running cost ... landowners can afford and do pay higher prices for the land than the current market price of the land before construction of the new highway. Thus this

higher price reflects the greater productivity of the land in its new use. (Winfrey, 1969: 498)

The changes in the net benefits accruing as a result of a new highway, according to the professor of civil engineering whom we have just quoted, could be anything of the order of an increase in land prices of 100 to 1,000 per cent. This was no mean transformation in the expectations of the community through which a highway penetrated. The pricing mechanism provided a precise index of the changes in benefits that the users expected to reap. One would have thought that this information was pertinent to the planners who were charged with guiding governments in the decisions about where, and how much, to invest. Land prices also said something about the distribution of windfall gains and people's capacity to pay for the new services – 'landowners may reap sizable windfalls from selling their land at these high prices brought on by the highway improvement. To such landowners their gain is unearned'. Even so, we are told, by the 1960s, 'All in all, land-value changes are not a part of economy studies for economic evaluation or project formulation of highway improvements ...' (ibid.: 499).

Was it this silence on the nature of rent which delivered the culture of statism that afflicts society today? If so, the problem is located in the financial architecture, and especially the state's role in failing to legitimise a distribution of income that reflected the economic potential of the industrial economy.