SUNK ESTATE

Consultant Keith Palmer examines how payment by results affects the affordability of private finance initiative hospitals and suggests a reform of capital costs funding

THERE IS GROWING CONCERN about the affordability of significant new capital investments under the payment by results system. The problem is that the tariff is based on average costs and there is no recognition of 'locked in' and front-loaded charges. The experience of one trust in south east London bears out these fears, adding weight to calls for changes to the system.

The Queen Elizabeth Woolwich Hospital NHS Trust (QE) – above – has a large underlying income/expenditure (I/E) and cashflow deficit. The underlying I/E deficit in the three-year period ending March 2006 was £13m a year (10% of total income). At the end of 2006/07, despite cost reductions in-year amounting to 7.5% of income (£10.7m), the underlying deficit remained about 5% of income. The aggregate cash deficit at year-end was £67m.

In 2006, Cambridge Economic Policy Associates (CEPA) undertook an independent analysis of the causes of this deficit. Our analysis was prompted by our concerns about the way capital costs were funded by payment by results.

The QE is a 'whole hospital' PFI scheme with a capital value of about £118m. In 2005/06, the trust had income of about £133m. Net assets were about £26m, the low figure reflecting the transfer of the bulk of the assets to the PFI special purpose company.

The PFI contract has a 60-year term made up of an initial 30-year period and options for the trust to extend the term for two further 15-year periods. The availability component of the unitary charge (essentially, the rental payment for the site) is a fixed annual amount in real terms over the first 30-year period. The availability payment is zero during the two further 15-year periods. So, in effect, the trust pays the rental payment for use of the site for the full 60-year contract life over the first 30-year period.

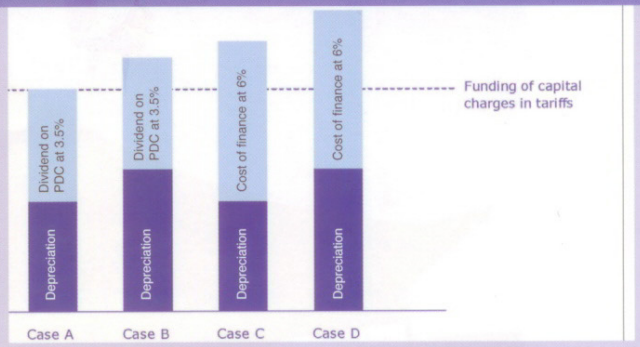
Value for money?

The PFI contract was approved at a time when the cost of public sector capital was 6% in real terms. The QE scheme met the value for money test set at the time, which was that it should be cheaper than the public sector comparator. The scheme met the test when assessed over the 60-year contract period. This means that when the scheme was approved, the cost of finance embedded in the scheme over the full contract period was 6% per annum but the cost of finance during the first 30 years was much higher than 6% (and, correspondingly, lower during the second 30-year period).

Since the scheme was approved, the public sector discount rate (the cost of public capital) has been reduced from 6% to 3.5%. As a

FIGURE 1: CAUSES OF COST TO INCOME RATIO GREATER THAN NATIONAL AVERAGE

Case A is where the trust's actual depreciation charge and dividend on PDC just equals the national average. Case B is where the cost of finance is 3.5% but the depreciation charge and dividend on PDC are greater than the national average because the replacement cost of the assets is greater than the average book value of existing capacity. Case C is where the depreciation charge is equal to the national average but the trust has a higher cost of finance than the national average. Case D is where the trust has both a higher cost of finance than the national average and a replacement cost higher than the average book value of existing capacity.



result, hospital trusts funded with public sector capital benefited from a reduction in the dividend on public dividend capital (PDC) from 6% to 3.5%. There was a corresponding reduction in the funding of capital costs to reflect this lower cost of public capital, leaving the net position of publicly funded trusts unchanged.

'Early' PFI schemes, such as QE, however, had 'locked in' a higher cost of finance in their PFI contracts. Funding of their capital costs was reduced but without any corresponding reduction in their actual capital costs.

Payment by results tariffs include sufficient funding to pay the capital costs incurred by the 'average' trust in England, calculated as the sum of the average depreciation charge and the average cost of finance across all trusts in England.

In 2006/07, the capital costs incurred by the 'average' trust in England were about 5.8% of income. If a trust had an actual capital cost-income (CI) ratio greater than 5.8%, then funding in tariffs was less than was required to pay its actual capital costs. An actual CI ratio lower than 5.8% meant it received more than needed to pay its actual capital costs. As the Audit Commission has observed, the CI ratio differs markedly across trusts, ranging from less than 5% to as high as 12%. QE's ratio in 2006/07 was 10.4%.

There are two reasons why the CI ratio of a trust might vary from the national average. First, it may result if its cost of finance differs from the national average cost of finance. The cost of finance of publicly funded trusts is 3.5%. The cost of finance embedded in early PFI schemes is about 6%. This higher cost will raise the CI ratio of the trust above the national average.

Second, if the replacement cost of new capacity is greater than the average book cost of the same amount of existing capacity in England, then its CI ratio will be higher than the national average. This is because the depreciation charge and the cost of finance (even if charged at 3.5%) will be greater than the national average (see Figure 1, above).

Table 1 (below) summarises the analysis of QE's unfunded capital costs. It shows that throughout the first 30 years of its PFI contract QE incurs unfunded capital costs ranging from £7.4m to £8.5m per annum. A high proportion of these unfunded costs are attributable to the 6% cost of finance embedded in the PFI contract and the front-end loading of the availability payments. During the first 30 years, even if QE operates as efficiently as the average trust in England, it will incur an I/E deficit of about 5% of income.

During the second 30-year period, there are no additional excess costs incurred. The land and residual interest in the buildings, however, does attract depreciation and dividend on PDC. Over the second 30-year period of the contract the buildings will be substantially depreciated. As a result, the trust's actual capital

TABLE 1: QE EXCESS CAPITAL COSTS (£M PA)

	Contract period (yrs)					
	2005/06	**10-20**	**20-30**	**30-40**	**40-50**	**50-60**
Reduction in public sector cost of capital (6% to 3.5%)	-3.21	-2.60	-1.97	0	0	0
Front-end loading of availability payments	-2.27	-2.67	-3.71	0	0	0
Deferred asset charge	-1.18	-1.18	-1.18	0	0	0
Residual interest – dividend on PDC effect	-0.34	-1.18	-2.37	-2.22	-1.33	-0.45
Land	-1.54	-1.54	-1.54	-1.54	-1.54	-1.54
Residual interest credit	+1.93	+2.9	+3.87	0	0	0
Depreciation of residual interest	0	0	0	-2.53	-2.53	-2.53
I/E impact of 'excess cost of finance'	**-6.6**	**-6.3**	**-6.9**	**0**	**0**	**0**
Higher / Lower replacement cost than national average	-1.9	-1.1	-0.5	+2.4	+3.3	+4.2
Total net impact on I/E account	-8.5	-7.4	-7.4	+2.4	+3.3	+4.2

For years 30 -60, all items other than 'higher/lower replacement cost' would be funded in tariff and so are not an excess cost. Further details on the calculations at www.keithpalmer.org

TABLE 2: CI RATIOS AND MFF VALUES

	TRUST 1	TRUST 2	LEWISHAM (no PFI)	LEWISHAM (with PFI)	QE	BROMLEY	TRUST 3
Availability costs (% of total income)	4.2	4.8	5.3	8.2	10.4	11.3	5.8
MFF value 2006/07	1.32	1.29	1.23	–	1.20	1.20	1.20
Aggregate cash deficit	0	0	-13	–	-65	-87	-15

Availability costs for publicly funded trusts equal depreciation and dividend on PDC. For PFI trusts it is the sum of depreciation, dividend on PDC and the availability payment in the unitary charge. Aggregate cash deficit (£m) is the total cash loans payable to SHA at year end.

costs will be lower than funding in tariffs (if the basis for funding capital costs remains the same).

There is an estimated average annual benefit of £3.3m arising from this effect over years 31-60. Over the 60-year period, then, about half the excess costs incurred in the first 30 years are recovered and much less than half when the timing difference between costs incurred and benefits received is taken into account.

In principle, these unfunded excess costs could be offset by a higher market forces factor (MFF) tariff adjustment. In practice this is not the case. The basis for setting the MFF does not include any recognition of the differences in non-controllable capital cost variations across trusts. Moreover, the QE MFF value is the same as, or lower than, other trusts in outer London with much lower CI ratios (Table 2, above).

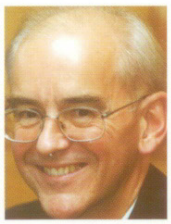
Large deficits might be explained as the result of inefficiency. An assessment of the efficiency of QE relative to other trusts in England does not support that contention. Comparative data from Dr Foster Intelligence reported by CEPA show that QE ranked in the first quartile for seven of 18 efficiency measures, was above the median for 13 of 18 measures, in the third quartile for five measures, and in the fourth quartile for none of them.

The analysis has been extended to cover all six hospital trusts in south-east London (Table 2 shows the CI ratios). The two 'whole hospital' PFI schemes (QE and Bromley) have much the highest ratios, respectively, 4.6% and 5.5% higher than the national average. The ratios are lowest at the trusts with older depreciated facilities and with a high proportion of donated assets.

Lewisham has commissioned a new PFI-funded building. Its CI ratio was 5.3%, but this increased to 8.2% when the new building opened because the annual capital costs increased significantly but income did not (since the new building was replacing old buildings).

Table 2 shows the MFF values for each trust. It shows that there is no correlation at all between the CI ratio and the MFF value, so unfunded capital costs are not offset by higher MFF values. This table also shows the aggregate cash deficits incurred by each trust. The two trusts with very high CI ratios have by far the greatest cumulative cash deficits, reflecting the unfunded cash costs incurred in paying the unitary charge.

The causes of the unfunded excess capital costs at Bromley are similar to those at QE. It is also an early PFI scheme with an embedded cost of finance of about 6% and it has a front-end loaded availability payment profile. Unlike QE, the scheme is on-balance sheet and it pays a higher dividend on PDC than it would were its assets off-balance sheet. This further increases its CI ratio.



QE will only be able to restore financial balance by reducing spending on patient care, with obvious risks for quality and safety

Keith Palmer (pictured)

There is clear evidence that the annual capital costs associated with building new hospitals are much greater than the funding in tariffs to pay those costs. Unfunded capital costs are greater for those trusts, such as QE and Bromley, which were approved when the cost of public capital was 6% and which have front-end loaded availability payments. These trusts are much more likely to incur deficits particularly in the first half of the contract period. They will have fewer options for restoring financial balance.

The argument that new facilities should have more scope to improve their efficiency, and thereby reduce average recurrent costs to compensate for excess capital costs, is not valid. There may be some efficiency gains but the benefits for patients of more single- and double-bedded bays, while real, raise the infrastructure costs per annual bed and staffing costs above the costs of older hospitals. There is no premium in tariff to reflect this higher-quality environment.

Capital charges relating to 'sunk' capital investment cannot be managed by the trust. It is inequitable for patients served by those trusts to suffer because of the funding arrangements. There is a strong case for amending the regime for funding sunk capital costs to remove this inequity. One cost-neutral approach would be to amend the basis for setting MFF values such that trusts with higher CI ratios received a higher MFF value and trusts with lower CI ratios would receive correspondingly lower MFF values. This would increase the equity of hospital funding without imposing any net increase in costs on the NHS budget.

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