INQUIRY INTO THE PRIVATISATION OF PRISONS AND PRISON-RELATED SERVICES

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Do the savings in government expenditure for private prison operation result in greater crime-related costs to growth and social welfare of the economy?

Section One

Introduction

This essay will discuss and compare evidence regarding the economic benefits and costs of publicly vs. privately run prison facilities, and present an argument as to which is more beneficial, or least costly, to the state economy. The subjects discussed in relation to this argument include the nature of public sector and private sector efficiency, the incentives of the government employee and private provider, the manner in which custodial functions are implemented under public and private operation, and the net economic value of public vs. private prison operation.

This discussion concludes that although the face value of private correctional operations presents a superficially attractive argument for the potential free-market efficiency of a privately run prison operation, such an argument tends to result from political ideology, and often ignores the effect of a significantly higher aggregate cost to the economy resulting from negative externalities associated with the inputs and outputs of a privately operated prison facility.

Section Two

2.1 Public sector and private sector efficiency

Over the last few decades in Australia, a major objective of both state and federal government policy has been the "reduction in public ownership and operation of key infrastructure and utility resources" based on the rationale that the free-market provides a means "for continuously improving the efficiency of resource allocation" (Swann, McEachern, 2006), thereby assuming the public sector is less efficient than the private sector.

The efficiency measures used to support this claim are highly relevant for private sector firms, such as earnings before interest and tax, return on assets, and sales margin (King, Pitchford, 1998). As efficiency is measured relative to the particular objective that is to be achieved, the accuracy of an efficiency comparison between a publicly-owned service relative to privately-owned service will be dependent on the compatibility of their respective dominant objectives.

2.2 Effects of differentiated objectives between a public and private prison

To qualify the previous description, the statement 'efficient allocation of resources' has very little direction on its own, but when added to an objective, the meaning becomes clear. For example, the financial efficiency of a private sector business is measured by 'how efficiently limited resources are allocated towards maximising shareholder wealth'. This rational objective of a private firm, when in equilibrium with consumer demand, results in a maximisation of resource distribution and consequently the maximisation of both supplier and consumer surplus, hence a maximisation of economic efficiency.

In comparison, the efficiency of a public sector service such as the police force can be measured by 'how efficiently the objective of the public enterprise is achieved given limited resources', or more specifically in the case of a police force, 'how efficiently limited resources are allocated in achieving a given number of arrests and convictions relative to a given quantity of crime in a given police command'. Although the objective of the police force is constrained by limited financial resources, the objective itself is not financial: it is to reduce crime by enforcing the law, thereby reducing the cost of crime. Therefore, efficiency of the police force is dependent on how efficiently police resources are allocated towards keeping the criminal element down.

In comparison, the efficiency of a public sector prison can be measured by how efficiently resources are allocated towards providing a "secure, humane, and safe correctional facility"(NSW DCS advertised mission policy) such as humane conditions and services during incarceration, the security effectiveness of inmate incarceration, and the inmates propensity to commit crime upon being released. The efficiency of a private sector prison, as with any other business, can be defined as how efficiently limited resources are allocated towards the provision of a "secure, humane, and safe correctional facility"as a means to achieve the desired financial objective of shareholder wealth maximisation.

This difference in how the dominant objectives of a public and private prison are defined and pursued can result in a very significant difference in efficiency: the "secure, humane, and safe correctional facility" is maximised given limited resources in a public prison, and minimised in a private prison in order to maximise shareholder wealth. The difference in objectives result in an inverse relationship between the

natural profit-maximising objectives of a private correctional firm and the external social welfare surplus generated by non-contractible qualities that are inherent in a public-owned prison.

2.3 Non-contractible qualities of a public-operated prison

The "non-contractible qualities" of a prison can be measured as (a) rehabilitation possibility, such as vocational education and training as well as other education, (b) selection and training of officers, such as the quality of the applicant and subsequent correctional training, (c) humane treatment, such as food quality, amenities, health care and mental care, (d) the good order and security of the prison, such as the maintenance of order in the inmate population and the maintenance of prison security, and (e) managerial efficiency in the allocation of limited resources towards these processes (Hart, Shleifer et al 1997). As a prison not only serves a short term purpose of containing a criminal threat to the community, it also serves a long-term-purpose of providing rehabilitation possibility to incarcerated inmates.

A private firm has a very strong incentive to reduce the provision the non-contractible qualities of a public sector prison, as the provision of these qualities is delivered primarily through human labor, which accounts for approximately two-thirds of incarceration costs. A private prison is approximately 10% financially cheaper in government expenditure when compared to a public prison, with the majority of savings appearing to result from an approximate 15% union wage premium not paid to private guards, combined with reduced staffing levels (Hart, Shleifer et al 1997). As a private correctional firm has to provide a lower operational cost in order to compete effectively for government expenditure, it also has to reduce staffing costs to a level sufficient enough to provide a profit margin that enables business enterprise viability.

The difference in government expenditure between a public and private prison therefore consists mainly of staffing levels and staffing costs, being higher in a public prison and lower in a private prison, and as per the point of this essay, are the savings in government expenditure from a private prison less or greater than the resulting crime-related costs on economic growth and social welfare?

Section Three

3.1 Definition of assumptions for economic effects of a public and private prison

This essay provides three assumptions for the measurement of the economic cost of a prison facility($^{e}C_{privatePF/publicPF}$) where A = the cost of correctional facilities and services/per inmate, B = the economic cost of a criminals propensity to commit crime after being incarcerated/per inmate.

$$\frac{dy}{dx}{}^{e}C = \frac{{}^{e}C_{privatePF}}{{}^{e}C_{publicPF}}, \text{ where } {}^{e}C = A + B.$$

Variable A: (the cost of correctional facilities and services in government expenditure/per inmate) is calculated, as per Hart, Shleifer et al, as being 10% less expensive in a private prison, therefore $\frac{dy}{dx}A$ as per Hart, Shleifer et al $=\frac{9}{10}= 0.9$

Variable B: (the economic cost of an inmates propensity to commit crime upon being released/per inmate) growth results in increased cost to economic growth and social welfare surplus. This argument provides that $\frac{dy}{dx}B$ is derived from the given function $\left(\frac{1}{Q}\right)^{n_{B}}$. B is explained by the following:

Hart, Shleifer et al provide that prison quality (Q) reflects the majority of a prisons operational costs, therefore a prison with a higher standard cost (assuming efficient allocation of resources towards prison quality) would also be a higher quality prison, and would produce an inmate with a lower propensity to commit crime than an inmate produced by a lower quality prison.

Although assessing variable B (the economic cost of an inmates propensity to commit crime) is highly intuitive, however, prison quality (Q) is given to reflect the prison cost so this argument shall define prison quality Q as being equal to prison cost A per inmate ($A = Q$), therefore the base function of the cost of an inmates propensity to commit crime (B) for the differential between a public and private prison is given by $\frac{1}{\frac{dy}{dx}A} = \frac{1}{Q}$.

If the differential of an inmates propensity to commit crime (B) is based on $1/Q$ alone, then B would simply be the reverse of A, and then added together would simply

yield a linear derivative of 1. This means that based on the respective differences in quality and cost there should be no difference between a public and private prison in total economic cost. However, the difference between two individuals propensity to commit crime can be demonstrated to multiply itself in economic cost through short-range and long-range natural feedback loops present in the economic system; such as the criminal propensity of dependent children, and the effects of socio-economic conditions on a criminals behaviour who then in effects socio-economic conditions with their behaviour and so on.

While it would be highly hypothetical to specifically calculate the exact number of such self-multipliers in order to accurately index the cost of a private/public inmates propensity to commit crime, the effects of increases/decreases in indices to the economic cost of B can be shown. The following three examples (n_1, n_2, n_3) are provided as such self-multipliers:

n_1: (the actual inmates propensity to commit crime): An inmates propensity to commit crime increases as prison quality decreases and vice versa, and since prison quality is higher in a public prison, an inmates propensity to commit crime (B) after being incarcerated in and released from a public prison is less than a similar inmates propensity to commit crime after being incarcerated in a private prison, all things held constant.

n_2: (inmates children propensity to commit crime): An individuals propensity to commit crime is very high if they are raised by a drug-dependent, unemployed, and uneducated parent. Since the majority of incarcerated criminals fall under this category, their children are the ones most likely to benefit from the quality of rehabilitation services, therefore as prison quality increases, the inmates children propensity to commit crime decreases. As the prison quality of a public prison is given to be higher than a private prison, the long-range economic cost of a public prison inmate children's propensity to commit crime is given to be less than the children of a similar inmate incarcerated in a private prison, all things held constant.

n_3: (positive feedback between an inmates propensity to commit crime and the aggregate propensity to commit crime of the population): If the inmates propensity to commit crime increases, the social welfare of the economy decreases. As the social welfare of the economy decreases, the aggregate propensity of the population to

commit crime increases which then increases the inmates propensity to commit crime: decreasing socio-economic conditions increasing aggregate criminal behaviour which then further decreases socio-economic conditions which then further increases criminal behaviour and so on, at a speed determined by the rate of change.

Therefore, as prison quality is lower in a private prison, and an inmate incarcerated in such would have a higher propensity to commit crime upon being released than an inmate that was incarcerated in a public prison, the resulting B contribution by a public prison inmate to aggregate B in aggregate positive feedback will be less than a similar private prison inmate, all things held constant.

The derivative of B can therefore be calculated as being dependent on the value of variable A, and derived through the given function $\left(\dfrac{1}{Q}\right)^{n_B}$ (as the function is raised to a power $f(x) = x^n$, it is derived by $f'(x) = nx^{n-1}$).

3.2 Examples of variables held as differential constants, and therefore not input:

an example of such would be the crime-related costs/per inmate not inflicted on the community by the inmate while in custody. Such a variable is held constant between a public and private prison, as the costs not inflicted on the economy are the same, as the inmate is incarcerated regardless which kind of prison he is in, therefore $\dfrac{dy}{dx} = 1$.

3.3 Summation of assumptions

Values provided by Hart, Shleifer et al can be then be input into the given equation provided at the beginning of section 3.1:

$$\frac{dy}{dx}\,^e C = \frac{{}^e C_{privatePF}}{{}^e C_{publicPF}}, \text{ where } {}^e C = A + B$$

$A = 0.9$

$$\frac{dy}{dx}B = n\left(\frac{1}{Q}\right)^{n_B - 1}, \text{ where } \frac{1}{Q} = \frac{1}{0.9} = 1.11 \text{ and } n = 3$$

$$= 3\left(\frac{1}{0.9}\right)^{3-1}$$

$$= 3.704$$

$$^{e}C_{privatePF} = A + B = 9 + 37.04 = 46.04$$

$$^{e}C_{publicPF} = A + B = 10 + 10 = 20$$

$$\frac{^{e}C_{privatePF}}{^{e}C_{publicPF}} = \frac{46.04}{20}$$

$$\frac{dy}{dx}{}^{e}C = 2.302$$

The resulting output of 2.302 shows, based on the assumptions and the quality difference input presented in this essay, that a private prison is 2.302 times more costly to the economy than a public-operated prison, when taking into account each prisons aggregate contribution to the growth and social welfare of the economy.

Therefore, if two equal quantities of criminals with an equal propensity to commit crime cost the economy $100 million per group over a set interval, and one quantity of criminals serve a given sentence in a private prison, and the other criminal quantity serve an equal sentence in a public prison, and then upon being released from prison the quantity of former public prison inmates cost the economy $50 million in crime-related costs to growth and social welfare: this means the quantity of former private prison inmates have with a reasonable degree of certainty cost the economy $50 million plus an additional $65.1 million in growth and social welfare cost.

The following conclusions can be drawn regarding the given argument and given data presented:

1/ Assuming an efficient allocation of resources towards prison quality, a public prison costs more in government spending than a private prison.

2/ Assuming an efficient allocation of resources, a public prison is of higher quality than a private prison.

3/ Assuming correct cost percentages provided by Hart, Shleifer and Vishny (through Harvard University and MIT, 1997), and assuming appropriate choice of functions given by this discussions author, the differential aggregate economic cost per/inmate is higher in terms of a private prison and lower in terms of a public prison.

4/ As a public prison becomes more efficient, non-contractible quality increases. As the non-contractible quality of a private prison decreases, the efficiency of the private correctional firm in maximising shareholder wealth increases.

Section Four

Conclusion

This essay has discussed aspects of public sector and private sector efficiency, the probable effects between differentiated objectives of a public and private prison, the non-contractible qualities of a public-operated prison, as well as providing a set of assumptions as a basis for measuring the differences in the economic effects resulting from the inputs and outputs of a public prison and private prison per/inmate.

This discussion concludes, based on the assumptions presented, that the cost in crime to economic growth is greater than the saving in government expenditure resulting from a privately operated firm, as the saving in government expenditure represents a loss of non-contractible prison quality. This essay has also implied that the free-market argument for private correctional operations is mainly political in nature and does not take into account a significantly higher aggregate cost to the economy resulting from negative externalities associated with the difference in quality between a public and privately operated prison facility.

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