

## THE ROCKY ROAD TO PARADISE: WHY ECONOMIC LIBERALIZATION IS INTERRUPTED

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LIBERTARIANS BELIEVE THAT REDUCING the size of government increases total welfare. Some believe that welfare would be maximized by eliminating government entirely. Whether shrinking government would be beneficial, however, depends not only on the level of welfare that could be achieved with no government, but on the path of welfare over time as the size of government is reduced.

Suppose, for example, that eliminating certain functions of government would create temporary disruptions. Even though higher overall welfare might eventually be achieved, this gain must be weighed against the cost of likely disruptions. Privatization of inefficient state-owned industries, for example, is likely to result in short-term unemployment, offsetting to some extent the long-term efficiency gains.

Another possibility is a situation in which inefficiencies of government offset each other. Eliminating one inefficiency before the other might create temporary welfare losses. An example would be a government-created monopoly of a polluting industry. Government failure to create private markets in water quality or to regulate pollution leads to production beyond the social optimum, since the firm does not bear the cost of pollution. As a monopolist, however, the firm produces below the social optimum. The combination of these two inefficient government policies could lead to production close to the social optimum. If, however, as government is being eliminated, the monopoly is removed before markets for water quality are established, production and pollution will temporarily exceed optimal levels.

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Whether it is optimal to proceed with a program of government shrinkage depends on the nature of the path of overall welfare and on rates of time discount. In this article, I outline a simple model of the relationship between welfare and the size of government and simulate the model using a specific functional form for this relationship.

## I. The Path of Economic Liberalization

Total federal government receipts in the United States rocketed from 3.6% of GDP in 1929 to 19.4% in 1943. After a brief decline to 14.2% in 1949 receipts stabilized and since 1959 have never been below 16.8% or above 20.9%. Federal receipts were 18% of GDP in 2008.

Other measures of the size of government in the United States also show stability over the past several decades. The ratio of federal non-defense, non-transfer spending to GDP has never exceeded 2.8% or been below 2.0% since 1959. State and local government spending reached a peak of 12.7% of GDP in 1975, declined to 10.7% in 1984, and has stayed within this range ever since.<sup>1</sup> Regulatory compliance costs also show no tendency to decline as a fraction of GDP, with economic regulation increasing at roughly the same rate as GDP and newer social and environmental regulation increasing faster (Crain, 2005).

The Heritage Foundation has been rating the economic freedom of countries of the world each year since 1995 (Heritage Foundation, 2009). Of the 152 countries with at least 11 consecutive years of ratings from 1995 through 2009, fewer than half show a statistically significant positive trend toward a freer economy. Of those with a positive trend, more than one third are former communist countries, which began from a very low level of economic freedom. None of these countries has yet reached the top tier of economic freedom, and only one, Estonia, has risen above the middle category as defined by the Heritage Foundation.

Even Hong Kong, rated by the Heritage Foundation as the freest economy in the world, has stubbornly clung to a variety of government economic interventions, including public housing for 50% of the population and subsidized medical care.

Something appears to be slowing or stopping progress toward free economies. It has long been known that, even if the elimination of all market imperfections would improve welfare, the elimination of any particular imperfection may not improve welfare (Lipsey and Lancaster, 1957). In the

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<sup>1</sup>Data are from the U.S. Bureau of Economic Analysis, [www.bea.gov](http://www.bea.gov).

case of former communist countries, substantial disruptions have occurred as a result of partial liberalization (Murphy, Shleifer and Vishny, 1992).

Since complete and sudden liberalization is usually a political impossibility, transition costs are an inevitable part of liberalization. These costs will result in some reduction of welfare at some point during the transition period. Given the assumed substantial benefits of complete liberalization, it might seem that these costs are worth incurring in the short term. Whether this trade-off is beneficial, however, depends on the relative costs and benefits and on the rate of time discount.

The model discussed in the next section illustrates the theoretical possibility that societies will rationally choose to interrupt progress toward free markets if progress requires temporary reductions in welfare.

## II. Model

The model described in this section assumes that free-market anarchy, in which government controls none of the economy, is optimal. The key aspect of the model, however, is that improvements in welfare on the way toward anarchy are non-monotonic. A choice is made at each point in time between leaving the size of government at its present level forever and continuing on the path of liberalization. A rate of time discount is assumed, and it turns out to be possible that short-term transition costs outweigh the long-term benefits of economic freedom.

Let  $P$  represent the size of the private sector as a fraction of the entire economy, and assume that welfare, represented by  $W(P)$ , is a function of  $P$ .

Over a period of  $Y$  years,  $P$  changes at a constant rate from 0 to 1. The rate of time discount is represented by  $r$ . At time zero, total welfare up to year  $Y$  is as follows:

$$Y \int_0^1 \frac{W(P)}{(1+r)^{PY}} dP \quad (1)$$

If  $P$  remains at 1 forever after year  $Y$ , then welfare at time zero for years beyond year  $Y$  is as shown in Equation 2. Years beyond  $Y$  are represented by  $t$ .

$$\int_Y^{\infty} \frac{W(1)}{(1+r)^t} dt \quad (2)$$

Total welfare will be the sum of (1) and (2).

$$Y \int_0^1 \frac{W(P)}{(1+r)^{PY}} dP + \int_Y^{\infty} \frac{W(1)}{(1+r)^t} dt \quad (3)$$

Let  $T$  represent some year in the future before year  $Y$ . At that time total welfare up to the year  $Y$  will be as follows:

$$Y \int_{\frac{T}{Y}}^1 \frac{W(P)}{(1+r)^{(PY-T)}} dP \quad (4)$$

In year  $T$ , welfare from years beyond  $Y$  will be as follows:

$$\int_{Y-T}^{\infty} \frac{W(1)}{(1+r)^t} dt \quad (5)$$

Total welfare will be the sum of (4) and (5).

$$\int_{\frac{T}{Y}}^1 \frac{W(P)}{(1+r)^{(PY-T)}} dP + \int_{Y-T}^{\infty} \frac{W(1)}{(1+r)^t} dt \quad (6)$$

In year  $T$  a decision can be made whether to continue to allow  $P$  to increase to 1 or to let  $P$  remain at the year  $T$  level of  $T/Y$ . If  $P$  remains at the year  $T$  level forever, then total welfare at year  $T$  will be as follows:

$$\int_0^{\infty} \frac{W\left(\frac{T}{Y}\right)}{(1+r)^t} dt \quad (7)$$

If (7) is greater than (6) then the optimal decision is to stop the progress of  $P$  toward 1. If (6) is greater than (7) then the optimal decision for society is to continue to reduce the size of government.

### III. Simulation

Simulating the model of the previous section requires a functional form for  $W(P)$ . The form should be capable of increasing over the range of 0 to 1 and of allowing a temporary drop within this range. A simple cubic polynomial can accomplish this. For example, if the relationship between welfare and government is as shown in Equation 8 and Figure 1, then welfare with no private sector is equal to 1, rises to 6 when the private sector reaches 35% of the economy, drops to 5.1 when the private sector is 65% of the economy, and then rises to 10 when government is eliminated.

$$W(P) = 1.0 + 36.4P - 81.4P^2 + 54.0P^3 \quad (8)$$

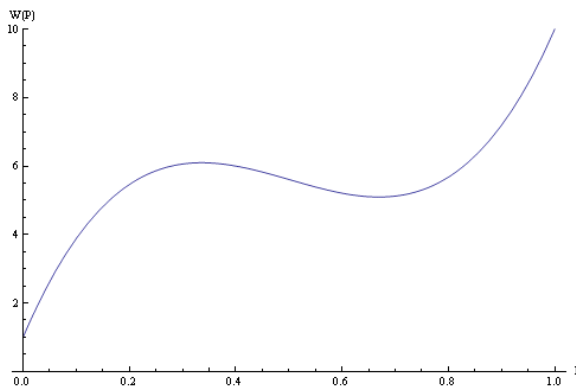
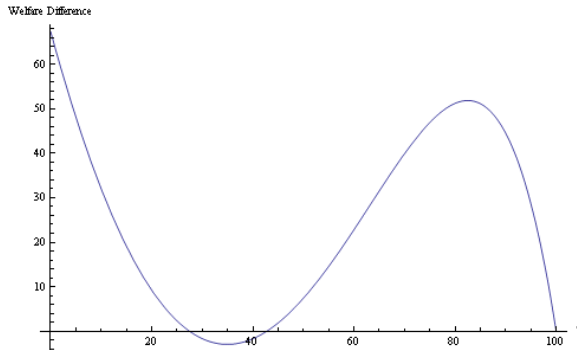


Figure 1: **Welfare as a Function of Size of Private Sector.** Plot of Equation 8.  $W(P)$  is welfare at a point in time and  $P$  is the size of the private sector as a fraction of the entire economy.

Suppose that the discount rate is 5% and  $Y$  is 100 years. Figure 2 shows the difference between (6) and (7). When the line in Figure 2 is below zero, it means that welfare is higher by fixing the size of government rather than continuing to reduce its size.



**Figure 2: Difference in Welfare between Reduction and No Reduction of Government Size.** Plot of the difference between Equation 6 and Equation 7. If the difference is less than zero then it is not optimal to continue to reduce the size of government.

Until year 27, welfare is improved by reducing the size of government. Between years 27 and 43, however, it is optimal each year to choose to leave the size of government unchanged forever after that time, even though a policy of continually reducing the size of government would eventually yield great benefits. Because future benefits are discounted, the cost of a temporary welfare reduction is greater than the future welfare improvements, even though these improvements continue forever.

This result depends on the assumed rate of time discount. If the discount rate is lowered to 4%, then the difference between equations 6 and 7 never reaches zero. If the discount rate is higher than 5% then the period of time in which the difference is negative is longer.

In summary, with a 5% rate of discount, if continued reduction in the size of government would result in a temporary 15% loss in welfare, it would be rational to permanently halt progress toward a freer economy, even though a completely free economy would result in a permanent 67% improvement in welfare.

#### IV. Conclusion

The path to political utopia is unlikely to be smooth. Making fundamental changes to the organization of society will involve significant short-term costs. Proponents of policies believed to have long-term benefits usually focus on the difference between current conditions and the expected utopia, and are puzzled when they fail to convince a majority of the population. Opponents of such policies, even if they concede the possibility of long term benefits, foresee short-term costs offsetting these benefits.

Whether individuals judge these costs to be worth incurring depends on their rates of time discount. If members of society have different rates of time discount, they will disagree on the desirability of taking the path to utopia. Since the rate of time discount is a fundamental aspect of preferences, it is difficult or impossible to resolve these differences by discussion and argument. Even if, for example, a libertarian is able to convince people of the feasibility of a world with no government and of spectacular benefits that would result, they might not be able to convince these same people that moving in this direction is worth the potential short-term costs.

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