

# Notes on *The Grabbing Hand* by Shleifer and Vishny

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October 2004

## 1 Perspectives on Government

In this chapter, Shleifer and Vishny (SV for short) describe three perspectives on the role and function of government in the market place. These three perspectives are labeled: (1) *The Invisible Hand*; (2) *The Helping Hand*; and (3) *The Grabbing Hand*.

### 1.1 The Invisible Hand

The *Invisible Hand* view is adopted by those who believe that markets work reasonably well without any government intervention. The intellectual foundation for this view is usually attributed to Adam Smith (1776), who wrote:

“It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our necessities but of their advantages.” *The Wealth of Nations*, Book I Chapter II

“Every individual...generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.” *The Wealth of Nations*, Book IV Chapter II

These quotes suggest a rather counterintuitive proposition: That each person, pursuing their own self-interest, also promotes the interests of society. Some people would make a stronger statement that the general well-being of people

living in a society *depends crucially* on each person being allowed to pursue their own self-interest without government intervention.

The idea that individuals acting in their own self-interest (i.e., noncooperatively) might lead to ‘good’ social outcomes is the basic idea behind the *First Welfare Theorem* of economics. The First Welfare Theorem states that under some conditions, the allocation associated with a competitive equilibrium is *Pareto Optimal*.<sup>1</sup> The general principle can be shown by way of a simple example.

Consider an economy consisting of many individuals (literally, a continuum). Each individual has preferences defined over a consumption good  $y$  and time devoted to labor  $n$ . Let preferences be given by:

$$U(y, n) = y - v(n),$$

where  $v$  is an increasing and convex function of  $n$ . You can think of  $v(n)$  as the disutility of work effort. There is a production technology available that transforms labor into output; i.e.,

$$y = f(n),$$

where  $f$  is an increasing and concave function. This ends the description of the physical environment.

Let us now suppose that a benevolent social planner is in charge of resource allocation in this economy. Clearly, the Pareto optimal labor input  $n^*$  is characterized by:

$$f'(n^*) = v'(n^*),$$

and the maximum utility is given by:  $U^* = f(n^*) - v(n^*)$ .

Let us now examine what happens if we were to ‘decentralize’ this economy by assuming that production decisions are made by competitive firms and consumption decisions are made by competitive households. Assume that households own the equity in the business sector (so that they are entitled to any profit  $d$  that is generated). Since there are two goods in this model (output and labor), there is one market. Let  $w$  denote the price of labor measured in units of output (i.e., the real wage). For any given  $w$ , a representative household faces the following choice problem:

$$\max_n \{wn + d - v(n)\},$$

which generates a labor supply function  $n^S$  that is characterized by:

$$w = v'(n^S).$$

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<sup>1</sup>An allocation is said to be *Pareto Optimal* if it is impossible to make anyone better off without also harming someone else in the economy. In other words, a Pareto Optimal allocation is efficient. While this is clearly a desirable property for allocations to possess, it is not the only way in which one may wish to judge the desirability of an allocation.

For any given  $w$ , a representative firm faces the following choice problem:

$$\max_n \{f(n) - wn\},$$

which generates a labor demand function  $n^D$  that is characterized by:

$$f'(n^D) = w.$$

As part of the definition of equilibrium, we require that  $n^S = n^D$ . This equation assumes that  $w$  will adjust to clear the market. Let  $n^e$  denote the equilibrium level of employment. By combining the two first-order conditions above, together with the market-clearing restriction, we see that  $n^e$  is characterized by:

$$f'(n^e) = v'(n^e).$$

In other words,  $n^e = n^*$ . What this shows is that a competitive economy will generate an allocation that is identical to what would have been chosen by a benevolent social planner. As a corollary, it follows that any government intervention cannot improve the welfare of individuals (and may in fact make things worse). This general result turns out to be robust to the inclusion of many realistic features, including heterogeneity, uncertainty, and dynamic considerations.

## 1.2 The Helping Hand

The *Helping Hand* view is adopted by those who believe that while markets may function reasonably well some of the time, most of the time they do not. This view came into vogue following the experience of the Great Depression, which was widely perceived to be a clear case of ‘market failure.’ As the name suggests, the helping hand view does not argue for total government control (as a communist may argue). But it does argue for massive state intervention to ‘help’ markets work better in achieving the ‘social good.’ This ‘help’ typically takes the form of taxing those activities that are perceived to be ‘oversupplied’ by narrow self-interest and subsidizing those activities that are ‘undersupplied’ by narrow self-interest. Implicit in this view is the hope or belief that individuals working for the government have both the willingness and ability to intervene on behalf of the ‘social good’ (as opposed to their own self-interest). Of course, the view also assumes that politicians and bureaucrats are a good idea as to what constitutes the ‘social good.’ It also assumes that these public servants have a good understanding of how their policies are likely to affect the behavior of (self-interested) individuals.

The Helping Hand view is based on the premise that the conditions that give rise to the First Welfare Theorem do not hold in reality. An important assumption of the First Welfare Theorem is that markets are *complete*. In other words, it assumes that there is a well-functioning competitive market for just about anything of value. If this is not the case, then narrow self-interest may not

lead to ‘good’ social outcomes because of ‘market failure.’ If some markets fail to exist, the private actions may have social consequences that are not properly priced. In this case, an ‘externality’ is said to exist. To show you how this can happen, let us consider a slight modification of the model developed above.

Assume that the production process is such that  $y$  units of output also discharges  $p$  units of pollution. People like to consume output, but they do not like pollution. To reflect this fact, assume that the utility function looks like this:

$$U(y, p, n) = y - p - v(n).$$

Assume that pollution is proportional to the level of output; i.e.,  $p = \theta y$ , with  $0 < \theta < 1$ . The production function is as above. A benevolent social planner would choose  $n$  to maximize:

$$(1 - \theta)f(n) - v(n).$$

Let  $\hat{n}$  denote the Pareto optimal level of employment; this is characterized by:

$$(1 - \theta)f'(\hat{n}) = v'(\hat{n}).$$

Notice that  $\hat{n} < n^*$ . As well, notice that *some* pollution is optimal; i.e.,  $\hat{p} = \theta f(\hat{n})$ .

Now, imagine that there is no market for pollution (i.e., a market on which pollution permits might trade). An individual takes  $w$  and  $p$  as given when formulating his choice problem; i.e.,

$$\max_n \{wn + d - p - v(n)\}.$$

The labor supply function is given by  $n^S$ ; as before, it satisfies  $w = v'(n^S)$ .

The firm is the ‘bad guy’ in this set up. That is, a firm is only interested in maximizing the profit associated with the sale of its output. In doing so, the firm does not take into account how its production may contribute to pollution. As such, the firm maximizes the profit function  $f(n) - wn$ , which generates a labor demand function  $n^D$  that is characterized by  $f'(n^D) = w$ . In a competitive equilibrium, we have  $n^S = n^D = n^*$ . Notice that the allocation associated with this level of employment is not Pareto optimal. In particular, the level of employment, output (and hence, pollution) is too high. The utility achieved by individuals in this economy is given by:

$$(1 - \theta)f(n^*) - v(n^*) < \hat{U} = (1 - \theta)f(\hat{n}) - v(\hat{n}).$$

For the helping hand economist, this type of scenario plays itself throughout the economy in a variety of different contexts. The question then becomes: what can the government do to help the economy achieve a better allocation? In the present context, it turns out that a simple government tax/transfer scheme can be designed that implements the efficient allocation.

Suppose that the government imposes a sales tax  $\tau$  on firms. In this case, the firm maximizes  $(1 - \tau)f(n) - wn$ . The condition that characterizes labor demand is now given by:

$$(1 - \tau)f'(n^D) = w.$$

The tax proceeds are then redistributed to households in the form of a lump-sum transfer  $x = \tau f(n)$ . This lump-sum transfer does not affect the household's labor supply decision. Consequently, the equilibrium level of employment  $n^e$  satisfies:

$$(1 - \tau)f'(n^e) = v'(n^e).$$

Notice that if the government sets the tax rate such that  $\tau = \theta$ , then the equilibrium level of employment equals  $\hat{n}$ . That is, by taxing firms in just the right way, the government can induce firms to produce (and hence pollute) less.

To summarize, the invisible hand economist places a lot of faith on the operation of markets. The basic assumptions necessary for this point of view are that: (1) property rights are well-defined; and (2) markets can operate at relatively low cost (transaction costs are relatively small). In contrast, the helping hand economist does not accept these propositions. For example, property rights over clean air are not well-defined, so that an externality results that requires government intervention (the invisible hand economist would simply prescribe a policy to make property rights over clean air well-defined, for example, by allocating pollution permits). For the helping hand economist, faith in the market place is replaced by a faith in public servants together with belief that government programs are less costly to administer than markets.

### 1.3 The Grabbing Hand

The authors argue that both the invisible and helping-hand views of government are not useful frameworks for delivering practical policy advice. The main reason for this is because both views ignore the role of politics. The invisible hand view argues that government should play a minimal role in society. But then what explains the rapid growth of the government sector in many economies over the last century? The invisible hand view can offer no explanation. On the other hand, the helping-hand view offers an explanation for why governments should interfere in the market place, but the idea that governments are run by altruistic agents seems to defy credibility (given ample evidence to the contrary).

In contrast, the grabbing hand view asserts that individuals working in the public sector act in their own self-interest, just like anyone else. The authors also take a skeptical view of the role of government; in this way, they share a similar perspective to the invisible hand model. But by being explicit about the way politicians can exploit special interests (or how special interests may appoint representatives to act on their behalf), the grabbing hand model is able to explain why governments exist. The grabbing hand model shares with the helping hand model an activist interest in reforming government, although

since their conceptions of government are so different, their ideas of good reforms rarely coincide.

The political model that underlies the grabbing hand approach recognizes that both despotic and democratic governments are likely to pursue goals that are very different from ‘social welfare’ (however one is to define this). Dictators use their powers to keep themselves in office, to direct resources to political supporters, to destroy political challengers, and to enrich themselves, often at the expense of public welfare. Democracies often generate incentives that make politicians more sensitive to public welfare, in part because they need to be re-elected, but democratically elected politicians typically do not maximize social welfare either. In particular, the winning majorities in democracies often pursue highly wasteful policies of redistribution from their losing minorities.

To formalize the idea of a ‘grabbing hand’ government, let us consider a slight variant of the model developed above (without the externality). Let us suppose that there is a dictator who wishes to extract as much output from the population as he or she can. Assume that the only limitation on dictatorial powers is that resources must be extracted by way of a distortionary income tax  $\tau$ . For any given  $\tau$ , the equilibrium level of employment  $n(\tau)$  is characterized by:

$$(1 - \tau)f'(n(\tau)) = v'(n(\tau)),$$

with the total amount of government consumption is given by:

$$g(\tau) = \tau f(n(\tau)).$$

Assume that the dictator wishes to maximize  $g$  with an appropriate choice of  $\tau$ . The optimal level of  $\tau$  is characterized by:

$$f(n) + \tau f'(n)n'(\tau) = 0,$$

where

$$n'(\tau) = \frac{f'(n)}{(1 - \tau)f''(n) - v''(n)} < 0.$$

So we see that the dictator faces a trade-off. By increasing  $\tau$ , the dictator is able to grab a larger share of the output that is produced in the economy  $f(n)$ . But on the other hand, by increasing  $\tau$ , the amount of output that is produced falls (since employment falls). In general, the optimal  $\tau$  will be some number between 0 and 1. Since the efficient level of output occurs when  $\tau = 0$ , we see that the dictator harms the entire economy for his/her own benefit. The same general principle can apply for a democratically elected government that taxes the minority in order to transfer output to the majority.

The grabbing hand view of government raises a crucial question. In particular, if governments behave ‘selfishly’ (either on their own behalf or on behalf of their supporters), then who is going to execute any reforms that might improve efficiency? Clearly, any reform package must be designed in such a way that it

benefits (or at least does not harm) those who currently have political power. This is a basic lesson that is ignored in both the invisible hand and helping hand views of government.

## 2 The Allocation of Talent: Implications for Growth

When they are free to do so, people choose occupations that offer them the highest returns on their abilities. When markets are large and when people can easily organize firms and keep their profits, many talented people become entrepreneurs. Examples of such countries include Great Britain during the industrial revolution, the United States in the late 19th and early 20th centuries, and some eastern Asian countries today.

In many other countries, talented people do not become entrepreneurs, but join the government bureaucracy, army, organized religion, and other rent-seeking activities because these activities offer the highest (private) returns. In mandarin China, medieval Europe, and many African countries in this century, government service, with the attendant ability to solicit bribes and dispose of tax revenue for the benefit of one's family and friends, was the principal career for the ablest people in society. In Latin America and parts of Africa today as well as many other countries through history, the most talented people often joined the army as a way to gain access to resources from their own countries (as well as from foreign conquests). In 18th century France, the best and the brightest also became rent seekers. The great chemist Lavoisier's main occupation was tax collecting, and Talleyrand was a bishop with a large tax income despite his prodigious entrepreneurial skills (demonstrated when he escaped to the U.S. after the French Revolution).

Which activities the most talented people choose can have significant effects on the allocation of resources. When people become entrepreneurs, they improve the technology in the line of business they pursue (i.e., they create wealth). In contrast, when they become rent-seekers, most of their private returns come from redistributing wealth from others. Time spent redistributing wealth has two adverse consequences for growth. First, redistribution does not create wealth. Second, redistribution can lower the returns to wealth creation, so that talented people substitute time away from wealth-creating activities.

### 2.1 A One-Sector Model

Consider an economy that consists of a fixed number of people that live for one period only (each period is populated by a new generation of people). Individuals differ in their ability, which we denote by the parameter  $A$ . Assume that ability is distributed in some manner according to a cumulative distribution function  $\lambda(A)$ , which is defined over the interval  $[1, a]$ , with  $a > 1$ .

Individuals are endowed with one unit of time. They can use this time as entrepreneurs or as workers. A worker earns a real wage equal to  $w$ . An entrepreneur operates a production technology  $AsF(H)$ , where  $s$  is an economy-wide productivity parameter,  $H$  denotes the level of human capital employed at the firm, and  $F$  is an increasing and concave function. For a given  $(w, A, s, H)$ , an entrepreneur earns the return:  $Y = AsF(H) - wH$ .

In this economy, it will turn out that both  $s$  and  $w$  grow at the same rate. For this reason, it will be useful to define a new term  $\omega \equiv w/s$ . Thus, the profit function for an entrepreneur can be written as:

$$y = AF(H) - \omega H.$$

Note that  $Y = sy$ , so that in a steady state, the return to entrepreneurship grows at the rate  $s$  (with  $y$  remaining constant). The demand for human capital is characterized by the following condition:

$$AF'(H^D) = \omega.$$

Observe that  $H^D$  is increasing in  $A$  and decreasing in  $\omega$  (make sure that you understand why). Consequently, for an individual endowed with ability  $A$  and facing the (adjusted) wage cost  $\omega$ , the (adjusted) return to entrepreneurship is given by:

$$y(A, \omega) = AF(H^D(A, \omega)) - \omega H^D(A, \omega).$$

We can now establish the following facts:

$$\begin{aligned} \frac{dy}{dA} &= F(H^D) > 0; \\ \frac{d^2y}{dA^2} &= F'(H^D) + F(H^D) \frac{dH^D}{dA} > 0. \end{aligned}$$

In other words, the return to entrepreneurship is increasing in ability  $A$ , and at an *increasing* rate (there are increasing returns to scale in entrepreneurship).

Instead of becoming an entrepreneur, an individual may instead choose to be a worker. A worker with ability  $A$  earns a return equal to  $wA$  (here,  $w$  represents the price of human capital and  $A$  represents the individual's level of human capital). This benefit must be weighed against the benefit of becoming an entrepreneur,  $sy(A, \omega)$ . Thus, an individual will choose to be an entrepreneur if:

$$\begin{aligned} sy(A, \omega) &\geq wA; \\ \text{or } y(A, \omega) &\geq \omega A. \end{aligned}$$

For a given  $\omega$ , there is a 'reservation value' for ability  $A_R(\omega)$  which is defined by the condition:

$$y(A_R, \omega) = \omega A_R.$$

A diagram may be useful here. Notice that the left-hand-side (LHS) of the expression above is increasing and convex in  $A$ , while the right-hand-side (RHS) is increasing and linear in  $A$ . Although I cannot seem to prove it, it seems intuitive to suppose that  $A_R$  is increasing in  $\omega$  (why?).

So far, we have considered the choices that people make for an arbitrary  $\omega$ . In equilibrium,  $\omega$  will adjust to clear the labor market. In particular,

$$\int_0^{A_R(\omega^*)} Ad\lambda(A) = \int_{A_R(\omega^*)}^a H^D(A, \omega^*)d\lambda(A).$$

The LHS of the equation above represents the supply of human capital, while the the RHS represents the demand for human capital. You can think of this as one equation in the one unknown,  $\omega^*$ .

Finally, assume that the general level of technology  $s$  grows according to the following equation:

$$s_{t+1} = s_t x_t,$$

where  $x_t \in [1, a]$  represents the ablest entrepreneur in period  $t$ . In this simple model, we have  $x_t = a > 1$ . This specification embodies the idea that the best practice technique in period  $t$  becomes common knowledge in period  $t + 1$  (i.e., the best technology diffuses completely after a one period delay).

## 2.2 Rent Seeking and Growth

Let us now assume that when an entrepreneur earns a profit equal to  $(1 - \tau)y$ , where  $\tau$  represents the fraction of profit taken away by rent seekers (in the form of bribes, taxes, fees, etc.). Assume that  $\tau$  is exogenous. As well, assume that there is no productive component to rent seeking (so that it is not an entirely accurate description of government, organized religion, or legal services). Since rent seekers here tax profits instead of wages (a simplifying assumption), the tax creates a distortion between entrepreneurship and work, but no distortion in the size of the firm.

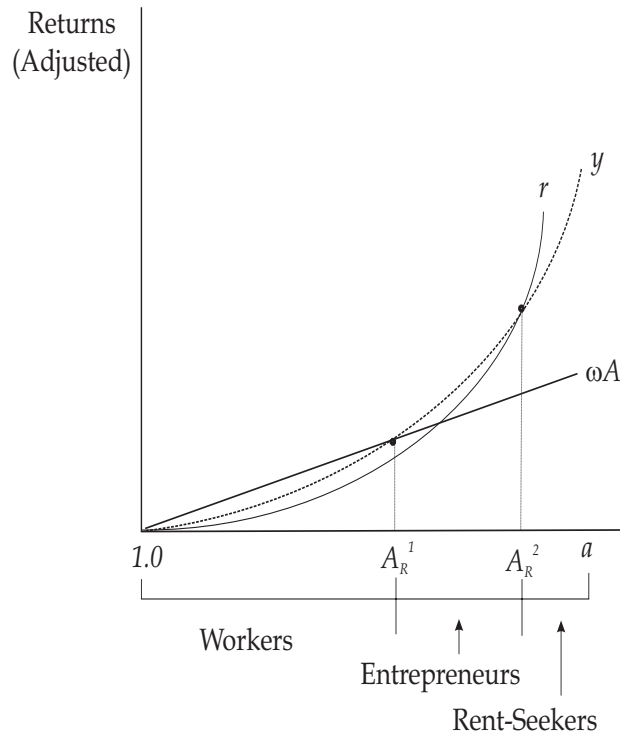
The rent-seeking technology is also subject to increasing returns to ability  $A$  and decreasing returns to scale  $H$ . Let  $Q \subset [0, a]$  denote the set of individuals who choose to be rent seekers. Then assume that the rents collected by an individual with ability  $A$  is given by:

$$R = \left[ \frac{AG(H)}{\int_Q AG(H)d\lambda(A)} \right] \tau Y,$$

where  $G(H)$  is an increasing and concave function. The term in the square brackets represents the fraction of the total rents collected by an individual with ability  $A$ .

A rent-seeker will choose  $H$  to maximize  $R - wH$  (or the adjusted return  $r = R/s - \omega H$ ). An entrepreneur will choose  $H$  to maximize  $Y$ . Let  $E \subset [0, a]$

denote the set of individuals who choose to be entrepreneurs. Then the authors show that the sets  $Q$  and  $E$  depend on the relative elasticities of the functions  $F$  and  $G$ . The interesting case occurs when  $G$  is more elastic than  $F$  (so that diminishing returns set in less quickly in the rent-seeking sector). In this case, the population will divide itself into the three occupations as follows. There will be two reservation values for  $A$ ; i.e.,  $0 < A_R^1 < A_R^2 < a$ . Those individuals with low ability (i.e.,  $A \in [0, A_R^1)$ ) will become workers. Those with average ability (i.e.,  $A \in [A_R^1, A_R^2]$ ) will become entrepreneurs (so that  $E = [A_R^1, A_R^2]$ ). Finally, those with the highest ability will become rent-seekers; i.e., those with ability  $A \in [A_R^2, a] = Q$ . The following diagram depicts the equilibrium.



The intuition is simple. Since diminishing returns set in less quickly in the rent-seeking sector, any given ability level can be spread across a larger level of ‘production.’ For this reason, higher ability individuals are attracted to the rent-seeking sector. This allocation of talent, however, has implications for how quickly an economy grows. In particular, the growth rate for knowledge  $s$  now evolves according to:

$$s_{t+1} = A_R^2 s_t.$$

Since  $A_R^2 < a$ , this economy grows less quickly than the economy that does not have a rent-seeking sector.

The model highlights three distortions from rent-seeking behavior. First, it absorbs labor (so that output is reduced). Second, it distorts the choice of the least able entrepreneurs, who now become workers (since entrepreneurship is taxed). And third, it turns the ablest people, who are pivotal for growth, into rent-seekers (so that the economy grows more slowly).

### 2.3 Policy Implications

It is not clear what the policy implications are for this analysis. In principle, one could recommend reforms that reduce the attractiveness of rent-seeking. But for these reforms to be implemented, they have to either have broad support (in a democracy) or they must in some way benefit those currently in power (typically, the rent-seekers). Clearly, everyone can benefit in principle if rent-seeking is eliminated *and if the winners can commit to compensate the losers adequately*. What sort of proposal might achieve this end? In particular, how can the winners be made to commit to their promise to compensate the losers?

Perhaps there is a way in which reforms may emerge ‘spontaneously.’ Suppose, for example, that there are two economies, one without rent seeking and one with a rent-seeking sector. Then the latter economy will grow less quickly and over time, a large gap will emerge between the level of per capita income (at least, to the extent that knowledge does not flow across borders). At some point, those in power may come to fear the economic might of their neighbors and realize that it is ultimately in their interest to promote growth (by undertaking reforms that dismantle the rent-seeking sector).