Theories of Corruption

- Theory 1: Good but misguided governments make rules that are too rigid. Venal bureaucrats bend the rules. Corruption reduces red-tape and, if anything, improves allocative efficiency. ( Huntington, Leff)

- Theory 2: Good and smart governments make rules that ought to be rigid (prices should be low and testing should be heavily used). Venal bureaucrats bend the rules. Corruption reduces red-tape and worsens allocative efficiency. (Laffont-Tirole (?))
• Theory 3: Greedy and smart governments make rules that are too lax. Allows bureaucrats more discretion than they should have. There is no red-tape and there need not be any corruption. Allocative efficiency suffers a lot. (Shleifer-Vishny)

• Theory 4: Good and smart governments make rules that make it tempting for the bureaucrat to take money and bend the rules. The bureaucrat introduces red-tape in order to bend the rules in a way that protects him. Corruption and red-tape go together.
There cannot be an equilibrium where $\sum_j \alpha_{ij} > 0$ for some $i$. If this were the case the other principals would want to sell the agent insurance against the risk coming from that particular $i$.

Conjecture: the only equilibrium is $\sum_j \alpha_{ij} = 0$ for all $i$ and $\alpha_{ii} = 1$ for all $i$. No incentives.
1.1.2 The Principal-supervisor-agent framework

The basic idea is that even in a democracy people do not control what the government does on a routine basis. The sources of government failure arise because there is a supervisor (the bureaucrat) or multiple layers of supervisors who are in charge of providing the right incentives to the participants in the economy (the agents).

- Assume that there is a set of slots of size 1 (a continuum) that need to be allocated to a population of size $N$.

- There are two types of agents: type $H$ and type $L$ in proportions, $\pi$ and $1-\pi$. $H > L$

- The social benefit to giving a slot to $H$ is $h$ and the private benefit is $h$. The corresponding numbers for $L$ are $L$ and $l$. Types are private information.
• There is a technology for detecting $H$ types which we will call testing. If used on someone, for a length of time $\Delta t$, the probability that his type will get known, conditional on not being known before is $\lambda \Delta t$. This implies that the probability of being undetected after $t$ units of testing is $\exp[-\lambda t]$.

• The cost of being tested for $t$ hours is $\delta t$

• Example 1: Suppose the slot is a prison room. $H$ types are criminals. $L$ types are not. $H > 0$ is the social benefit of sending a criminal to jail. $L < 0$ is the social benefit of sending an innocent person to jail. $h = l < 0$.

• Example 2: The slot is a hospital bed. $H = h > 0$. $L = l > 0$. 
The rules of the game we were studying are the following

- The government (or the People) sets the rules but the bureaucrat does the actual allocation

- The government defines a set $T$ which defines the levels of testing that can be required of those who claim to be $H$ types and a set $P$ which defines the set of prices they can be required to pay if they get the slot. The set can be a singleton $(p, T^*)$ or it can be a range. If it is a range the bureaucrat has discretion. It also announces $c$ which is the punishment that the bureaucrat gets for straying from the acceptable range.
• The bureaucrat is honest if he will never stray from this range. He is venal if he decides whether or not to stray based on his $c$. Different bureaucrats have different $c$ values (described by $G(c)$).

• The government is good if it wants to maximize social welfare and greedy if it wants to make money.
• Corruption is when the bureaucrat breaks the rules for money.

• Red-tape is a procedure that is directly wasteful but may have screening benefits.

• Allocative efficiency is whether teh right people get the slots.
1.1.3 Corruption as necessary grease (Leff-Huntington)

- \( H = h > l = L, \pi N < 1 < N. \)

- Sets a price \( p < l, \) tests anyone who claims to be a \( H \) for \( T \) hours (whether or not he fails to make life simple) such that
  \[
  \exp[-\lambda T](l - p) - \delta T = 0.
  \]
  Red tape.

- A corrupt bureaucrat sells the slots at a price \( l. \) Does not test, because testing will reduce the surplus he can extract from the buyers.

- Only the \( H \) types buy. Efficiency increases because of corruption because it eliminates red tape.
• Corruption is negatively correlated with red-tape across countries (assuming that greed varies). If some governments are more irrational than others, then the correlation should be positive.

• What distinguishes governments is irrationality
1.1.4 Corruption as extortion (Shleifer-Vishny)

• $N < 1$ and $L > 0$, i.e there is no reason to ration these goods.

• Bureaucrats introduce red-tape in order to extort. They announce that everyone would be tested for $T$ hours and only then given the goods.

• People pay them in order to get out of testing.

• Red-tape (measured by complicated rules) should be positively correlated with corruption but not actual delays (there should not be any), under the assumption that greed or monopoly power is what varies.

• To explain actual delays we need to assume that the government bans such payments to fight extortion and as a result the honest bureaucrats enforce the rules, generating delays.
• Why cannot the government eliminate the testing requirement?

• What distinguishes governments is monopoly power.
1.1.5 Corruption as a necessary evil (Laffont-Tirole)

- \( \pi N > 1, l > h \). The goods are scarce, but the private valuation of the high types is lower than that of low types.

- Price mechanism will not give us allocative efficiency. The optimal mechanism involves setting the lowest value of \( T \) such that

\[
  h - \delta T - p \geq 0 \\
  \exp[-\lambda T](l - p) - \delta T = 0.
\]

for some value of \( p \).

- \( p < h \) : A corrupt bureaucrat will try to raise the price and give it to the \( l \) types. They will not want to test since testing is a waste.

- The government will make it illegal to charge higher prices to improve allocative efficiency. As a result there will be corruption.
• Corruption will be negatively correlated with red-tape, if greed is what varies and red-tape and allocative efficiency will be positive correlated.

• What distinguishes governments is the fact that private and social returns are misaligned.
1.1.6 A more elaborate necessary evil view

- $l < h, N > 1 > \pi N$. You want to give the slots first to all H types and the rest to L types.

- People are credit constrained: they cannot pay more than $y < l$. So $p = l$ does not work.

- The optimal "price" mechanism sets two prices ($y$ and $p$) such that:

$$l - y = \frac{(1 - \pi N)}{N} (l - p)$$

and gives it to self-professed $h$ types at price $y$ and to self-professed $l$ types at price $p$.

- If there is no check on allocative efficiency, A corrupt bureaucrat will raise the price for everyone to $y$. 
• If the government tries to control allocative efficiency, the bureaucrat will still raise the price to $y$ and then test the self-professed $H$ types to improve allocative efficiency.

• Corruption is positively correlated with red-tape.