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# Foreword

For the last 50 years, we have been spending huge sums of money on urban sewage to clean up our waterways and we have been imposing strict regulations on polluting businesses to keep our air clean. We still have to throw money at urban sewage but now agricultural runoff and stormwater are our #1 water problems, both of which we now need to pay for as well.

Who's going to pay for agricultural runoff? Farmers? Who's going to pay for an urban church to replace its parking lot with "green infrastructure? The pastor and the congregation? Do you know of any governor who's going to make either a farmer or the pastor of a church pay for these projects?

As jobs become more of a political issue, we can't keep putting stricter air pollution controls on businesses, which can just take their jobs and move to another state. We're going to have to start creating financial incentives for those businesses to stay.

So the first question is: who will pay for these new environmental challenges? Will they be affordable for the average citizen? Will there be subsidies? The next question is how will they pay for them? Can they finance them? What's the most cost-effective way to pay for them?

In addition to our old familiar problems with clean water and clean air, there are several new issues that we're just getting acquainted with. The first of these is global warming. We will need to pay to reduce the amount of greenhouse gases that we humans are pumping into the atmosphere each year. But in addition, we will have to pay to live with some of the inevitable consequences of global warming like rising sea levels and extreme weather events. Resilience, Adaptation, and Mitigation are the three new buzzwords for some of the strategies that we must embrace to survive global warming.

We're not used to thinking of rebuilding coastal cities after destructive hurricanes as a quality of life issue. But indeed it is. Just as much as dealing with asthma is when someone lives downwind of a huge chimney.

Another new quality of life issue is cybersecurity. What happens when the power goes out—for a long time? Will you have water? Will the toilets work? Will you be mobile? The U.S. power grid is highly vulnerable to vandals and terrorists. It is vulnerable to the weapons of foreign governments that are our enemies? And it is vulnerable to hackers of all sorts who can bring the cyber networks that we now all rely on to a complete halt.

So, that is what this book is all about. It is about what we are going to have to pay for in order to maintain our quality of life in the foreseeable future. And it is about the strategies we must employ to make sure that we use the most cost-effective and least expensive strategies to pay for them.