# A Meeting of the Durand Family on Income Tax Reform and Wealth Inequality

## By Richard A. Demers

##  Preface

Authors hate wasting their scribblings, but not everything they write makes it into a novel. Such is the case with this series of dialogs taken from ***American Democracy Forever***, which my editor argued should be replaced by a simple narrative. So, that's what this is, scribblings that didn't make it into ADF but that I didn't want to just delete. It would help to read the novel first, but even if you haven't had a chance, this story stands on its own.

**A Birthday Party**

Julie and Charlie didn't do much entertaining in Saisekiba, their mountaintop estate in the bowl of an old quarry, mostly because of security reasons, but also because they valued their privacy. Charlie's birthday, however, was different. Julie charted a jet to bring family members to Palo Alto for a week-long celebration. Charlie's Dad and Mom, Al and Rita Durand, came from Niagara Falls, New York, where they now had a beautiful retirement home on the river side of Cayuga Island. Charlie's sister, Mandy Newman, her husband Jack, and their three kids came from Washington, DC. Julie's brother Mark Holman, his wife Claire, and their three kids came from Minneapolis, Minnesota. There was also, of course, Julie and Charlie's four kids. Bruce Little, Charlie's right-hand man and best friend, Sylvia, his wife, and their two kids lived on in a separate home within Saisekiba and were considered part of Charlie's family. Saisekiba's ten-bedroom main house was filled, even with Charlie's kids sharing their rooms with cousins of similar ages and sexes.

On arrival, the kids all headed immediately to the pool, which Bruce had heated to a pleasant eighty-two degrees. It was quite a noisy group. The adults enjoyed cocktails on the pool deck, but after a single drink to be sociable, Charlie jumped into the pool with the kids. The younger kids hung on his arms and neck while he swirled them in circles. Then, they demanded that he pick them up and toss them into the air for a satisfying plunge into deep water. A splash war began, and Charlie soon learned that he was the kid's primary target.

When Charlie left the pool, the kids raided the snack and drinks table. The younger kids headed off to the elaborate pagoda-styled playhouse Bruce had built for them, while the two oldest, Emily and Mandy's son Matthew, both sixteen-years-old, went for a run around the base of the quarry's cliffs. This gave the adults a chance to do some quiet talking about their Forum Club projects.

**Should taxes be reformed**

That evening, after supper, the adults were sitting in the living room of the main house. The evening had grown chilly, and logs burned brightly in the fireplace as they sipped hot drinks. The kids had dispersed throughout the estate, some to the dojo, some to the movie room, and others to the game room. Julie had made it clear to them that the adults were not to be disturbed for a while.

Charlie's dad, Al Durand, addressed the adults, "This has been a great party, but I have a feeling there's something Charlie wants to discuss."

Everyone turned in their chairs to face Charlie. He leaned forward in his chair to address them: "Yes there is, in a word, taxes. Opinion now has it that the current federal and state income tax policies are working against us... and by us, I mean, as always, the common man."

Sylvia, Bruce's wife, chuckled, "Really Charlie? You, a common man?"

He let her wisecrack slip by. "You know what I mean, Syl."

Jack Newman, Charlie's brother-in-law, chuckled: "I was wondering when they'd get around to income tax reform. What do you have in mind for us, Charlie?"

"Before I voice any specific thoughts," Charlie said, "I'd like to hear your opinions about income taxes."

"Opinions?" Claire Holman, Julie's sister-in-law, blurted out. "What is there to say beyond the fact that everyone hates preparing their annual tax return and everyone hates paying them."

"Yes, yes," Charlie said, "but why do you hate them. I know you appreciate all the benefits and services that government provides. And I know you're intelligent enough to understand that it's mostly income taxes that pay for them. So why this deep-seated hatred of what you know is necessary?"

Everyone was quiet for a moment.

Bruce spoke out angrily, "It's because we know they're unfair and unjust."

"That's it in a nutshell," Al said. "Income taxes have gotten so complicated that only high-paid tax lawyers can figure out all the deductions and credits you can take. Everyone else gets screwed."

Mark, Julie's brother, spoke out, "Deductions exist, whether you can claim them or not. If you don't have a second home, you can't claim a mortgage interest deduction for one, can you?"

"True," Al agreed, "but why is such a deduction from income even possible? It's not like most people have a second home. No, it's because the Real Estate industry lobbied Congress so that they could sell vacation homes or houseboats or condos in ski resorts or timeshares in Florida to more families."

"What's wrong with that?" Claire demanded. "Most people like having places to escape to during vacations."

Rita Durand, Charlie's mom, had been listening carefully to the discussion: "I don't actually do tax returns—Al does them for us—but I hear him grumbling about them every year. One of the things I've heard him mention is that the bigger your income, the bigger your deductions. If you have a million-dollar mortgage on a second home, your interest deduction is much bigger than the interest deduction a person with a hundred-thousand-dollar mortgage can claim. You get to avoid paying taxes on more of your income, income that may well have been taxed at a higher rate. Where's the fairness in that?

"And if you're just scraping by, living in a cheap apartment, you can't take a deduction for any mortgage interest because you don't have a mortgage." Rita concluded.

"It's like that throughout the income tax laws," Mark said, "whether it's deductions for mortgage interest, property taxes, charitable contributions, or casualty losses. The higher your income, the bigger your deductions. It's the inverse of a progressive income tax."

Charlie looked around the room: "Do we all agree there's a problem with the income tax laws?" He could see everyone nodding in the affirmative.

Claire cleared her throat before speaking up: "Charlie, I agree that tax reform is needed, but I have a question for you. We all know and agree with your grand plan to reform the country, so it won't be taken over by an evil dictator. What does tax reform have to do with that?"

"The easy answer," Charlie answered, "is by depriving him of money through tax evasion. The second is by depriving him of voters. President Bill Clinton used the slogan "It's the economy, stupid!' He meant your personal piece of the economy. Are you getting your fair share? And if not, who's to blame. A would-be dictator can take advantage of the fact that too many people are not getting their fair share. This is partially because their taxes are too high because the rich don't pay their fair share. Who is to blame for that? But, instead of blaming taxes, he can point to immigrants, call them rapists, murders, and job steelers. He can sow fear, hatred, and divisiveness. He can paint himself as their savior."

"Okay," Claire said, "so you're saying that reforming taxes prevents someone from having a base of supporters who are hurting economically and look to him as someone who can make things right for them."

"Yes, that's the result I want to achieve, but you have to look a bit deeper at the effect real tax reform would have on people's lives. People with the lowest income should get a helping hand through a negative income tax. They should be able to save some money and invest in productive assets, to become part of the ownership class. Not having anything but an unreliable paycheck and struggling to stay afloat week after week makes people angry and willing to listen to a conman."

Mark spoke up: "So what you want is income redistribution through the income taxes. You want to take from the rich and give to the poor—the undeserving poor, as the Republicans would say."

"It's in the nature of unconstrained capitalism for income and wealth disparity to get ever more extreme," Charlie said, "and we haven't seen anywhere near how extreme it will get after the great internet fortunes are created, when a handful of families own and control most of the nation's wealth. On his own, Joe Paycheck doesn't stand a chance, and because of that, democracy doesn't stand a chance."

The group fell silent after hearing Charlie's comments. He had painted a dismal picture of the future, but it was redeemed by his positive attitude that something could be done to make a better future for their kids.

"Let's go into this in more depth over the next few days," he said.

"What did I tell you, Jack?" Mandy commented ruefully to her husband. "Charlie's going to make us work while we're here."

"Oh, don't worry," Charlie said, "you'll still have plenty of time in the pool with the kids,"

"Let's get the kids together for s'mores around the fire pit on the terrace," Bruce announced.

**Curious kids**

At seven o'clock the next morning, Charlie went to the dojo for his daily workout. He never knew what it was going to be: weights, karate, Yoga, or whatever sensei Bruce wanted to do. Charlie liked these morning sessions to be a surprise so that he would want to keep doing it. This morning, he was joined by Jack Newman, Claire Holman, and two kids, his daughter Emily, and Mandy's son Matthew. They did a standard set of Yoga poses, followed by five minutes of savasana, the resting pose—nothing too strenuous.

The dining room of the main house was set up as a breakfast buffet, which is to say, a little bit of anything people might want. Charlie ignored the buffet, because, as they say, "Rank has its privileges." He took his regular place at the head of the table and waited to see what the cook had to surprise him. One of her jobs was keeping close track of his diet so that he wouldn't bulk out. Charlie breathed a sigh of relief when she put a plate in front of him with small portions of scrambled eggs, hash browns, bacon, and caraway rye toast—thankfully, no yogurt and granola this morning.

As he began to eat, Emily and Mathew took seats on either side of him. They were both sixteen and the oldest of the twelve kids celebrating Charlie's birthday. Emily and Matt were looking so adult Charlie thought it was beginning to be inappropriate to consider them kids. He could see they had something on their minds.

Matthew began: "Uncle Charlie, Em and I were wondering what you adults were talking about last night, so I asked my mom. She said it wasn't anything we needed to worry about... just talk about taxes."

"We're going to have to pay taxes in a few years. Shouldn't we know something about it?" Emily asked.

"It is," Charlie replied, "that's why we're talking about it. I've been looking at the income tax system to see if there is something we can do to make it fairer."

"That's pretty dry stuff," Emily said.

"It isn't fair now?" Mathew asked.

"No, it isn't. The income tax laws have gotten overly complicated because the rich don't want to pay their fair share. They've lobbied Congress to get all kinds of special provisions that help them avoid—and sometimes evade—paying what they should. There was one case where a billionaire real estate developer paid nothing in taxes after claiming deductions on $300 million in losses to his businesses in prior years. This kind of chicanery has to be eliminated."

Emily looked concerned. "But Dad, we're rich, aren't we? I mean none of the other kids in my school live in Japanese palaces like this," she said waving her hand in the air to signify everything around her. "I've had some friends from school here, who all come from affluent families, and they can't believe this place."

Charlie smiled, "This is pretty elaborate, but we live here mostly because we're safe here."

"Safe from what?" Mathew asked.

He was getting into areas Charlie and Julie had gone to great ends to shield the kids from, but maybe it was time for a bit of reality education.

"There are things that I do that some people don't like." Charlie said. "They haven't done anything to harm us yet, but I don't want to make it easy for them. It's why we have a secret escape tunnel."

Emily gave him one of her sardonic grins that preceded a tease: "Really, Daddy, isn't that kind of, you know, paranoiac?"

"Perhaps, my dear, but never forget that even paranoiacs can have enemies."

She gave him one of her radiant smiles. "If you say so, Daddy. But back to income taxes. Matt and I were wondering if we could sit in on your discussions this morning."

*Is it time to go even further than that and bring them in on the family project?* Charlie wondered. *Not yet, but they could be brought in slowly and this is a suitable time to start.*

"Okay," he said, "you two can join us this morning... but only as silent observers. There may be things said that don't make sense to you, things best thought of as family secrets. After the meeting on taxes concludes, you can ask me questions."

"Eww, family secrets!" Emily blurted out. "Does that mean we have skeletons in our closets?"

"Do you want to be one of them?" Charlie asked. "It can be arranged," he added with a grin.

**Should taxes be progressive**

Ten adults were seated at the conference room table. When Emily and Mathew entered the room, Mandy questioned their readiness to join the adults. Charlie simply said, "They were mature enough to ask to attend, so I agreed it was time to let them join this discussion."

"Okay," Mandy replied, "but before it goes any further and before any other children are brought in, their parents should be consulted."

"You're right, Mandy. Julie and I had already discussed bringing Emily in, but I should have consulted with you and Jack. Sorry."

Charlie paused and then said, "Let's get started. You've all had time to consider the basic proposition that the current income tax system is unfair and unjust. Now, what do we do about it."

Julie spoke up because she and Charlie had been talking to each other about taxes for months: "The way I understand it, we could pick apart the current system, decide what should be changed, and then start the enormous, costly effort to lobby Congress. The alternative is to devise a new tax system from first principles, and then start the equally enormous and costly effort to lobby Congress."

Jack leaned back in his chair: "Charlie, would I be wrong in thinking you have a proposal for us to consider?"

"No, you wouldn't, but I'm willing to let the group decide how to proceed," Charlie said. "I would note, however, that what I have in mind does a good job of critiquing the current system."

"OK, let's hear it," Jack said. Everyone else nodded in agreement.

Charlie did not have a formal presentation prepared, only a set of notes on what needed to be covered: "I'd like us to consider a basic question," he began, "namely, what is the purpose of taxes?"

"Isn't that kind of obvious," Bruce asked. "It's to raise money for everything government does, everything from regulating commerce, to the social safety net, the military, and the space program."

"True, as far as it goes," Charlie agreed, "but politicians keep wanting the tax system to help special interests who contribute to their election campaigns. Expensive lobbyists then tell them what to do"

"Put that way, it sounds corrupt," Mandy said.

Charlie agreed: "It is corrupt, and it corrupts everything it touches, especially the income tax system. It seems to me that we need to eliminate the ability of politicians to affect tax laws except in general ways, to make the whole income tax system a lot more automatic."

"Automatic, how?" Al asked.

"Something like the tax rate on an income of X dollars is Y percent. No deductions, no credits, and no allowances—something everyone knows and respects, even if they personally don't like what they have to pay."

"Wasn't that proposed a couple of elections ago?" Jack asked. "I think a candidate for the presidency wanted everyone to be taxed at a fixed rate of 17%."

"Yes, it was, but it didn't fly because it ignored two basic facts," Mandy answered. "First, it wouldn't raise enough revenue. But more importantly, a family with a $20,000 income would be hurt badly by a seventeen percent rate while a family with a $1-million income would only see it as a nuisance that limited their ability to buy still more luxuries."

"So, what do you want? A progressive tax rate based on income?" Bruce asked. "Isn't that what tax brackets are all about?"

"No," Mark snorted. "The current system of tax brackets is just another scam concocted by the rich for their own benefit. It's highly deceptive. Most people don't seem to understand that the highest bracket is the maximum rate on all income above the bottom of the bracket. It doesn't really matter if you have a million-dollar income or a $1-billion income—you're paying the same thirty-seven percent."

"By the way," Mark continued, "that top marginal tax rate keeps getting lowered—from 90% after World War II to today's 37%. Republicans say it's to simplify taxes, but it's primarily to reduce the top marginal rate the one-percenters have to pay. They have the game rigged to their advantage. They claim we have a progressive tax system, but it is only progressive for lower income people, and essentially just a flat tax on themselves."

Emily and Mathew were quietly whispering to each other, and Charlie could see that Emily was bursting at the seams wanting to ask a question, but they were being silent as they'd promised. Taking pity on them, he said to them: "OK you two, before you explode and hurt yourselves, what's bothering you?"

"Well, Dad," Emily said, "If I get this right, in a real progressive tax system, the tax rate would keep going up until it reaches 100%. Would anyone want to pay everything they've earned in taxes?"

"You're right that no one would want to, but that doesn't happen if the income taxed at 100% is far higher than anyone's income. Say the highest income of any person is a billion a year, but you get charged 100% only if you have income of a trillion a year, a thousand times higher. The real issue, then, is the shape of the tax rate curve. Is it a straight line from 0% at $0 to 100% at $1 trillion? No, because we're dealing with twelve orders of magnitude. If you graphed it, it would be an extremely flat line that didn't bring in enough revenue. Or is it a curve that increases slowly and then increases rapidly at higher incomes? That's as bad as a straight line in terms of revenue. Or is it a curve that climbs quickly and then slowly increases to 100% at $1 trillion? We'll be talking about that later."

Mathew jumped in: "You seem to be saying that a progressive tax system is good, but wouldn't that hurt you too. I just read an article in Forbes that listed you as one of the top ten richest people in the country?"

"I saw that article," Charlie said. "I'm surprised you're reading business magazines."

"You left it on the coffee table in the living room, and I was curious," Mathew explained.

The morning sun was shining brightly through the dining room windows: "I believe in paying taxes in order to have the kind of country I want to live in—and that I want you to live in, Charlie said. "Right now, I pay taxes according to what the government allows, without being tax evasive. If I had to pay more to have a better country, I'd do that too, and be proud that I can. What I want is for taxes to be fair for everyone."

"Well OK, but how is it fair for some people to have to pay more in taxes than other people," Emily asked.

"Let me answer that one," Jack said. "It all comes down to how much paying taxes hurts you financially. Having to pay a 10% tax bill of $2,000 hurts someone who is earning only $20,000, but it wouldn't at all hurt someone with a $1 billion income to pay a 10% tax of $100 million. To get the same level of hurt, it may be that they'd have to pay a 30% tax of $300 million—or higher—but that's just a guess."

"That's one way of looking at it," Sylvie said. "Another is to recognize that the one-percenters get a lot more out of society than lower income people, so they should pay more."

Emily looked confused, "What more do they get than anyone else. I mean, we all get to drive on the same highways, and we all get police and fire protection. So, what more do they get?"

Charlie answered her himself. "They get to put heavy trucks on the highways, and they get police and fire protection not just for their mansions but also for their factories and warehouses. And more crucially, they get a well-tempered society in which they can do business."

"We have a lot more to talk about, but let's break for lunch until one o'clock," Charlie said, which everyone agreed to.

**The shape of the tax curve**

When people entered the conference room that afternoon, they saw that Bruce had set up a screen on which a smiley face had been projected. The projector was driven by a tablet computer running software for drawing by hand. Bruce took his seat at the table, relinquishing the seat in front of the tablet to Charlie.

When everyone was settled at the table, Charlie began: "Everyone had a good lunch?" This was acknowledged by nods and smiles by everyone. "Great, I want to go back to what we were talking about before the lunch break, namely the shape of the tax rate curve."

On the tablet, Charlie wrote the equation of a straight line: "y = mx + b."

"I trust all of you remember this much from high school algebra." Mathew and Emily had just finished courses in Calculus and Linear Algebra, so he had no doubts about them. For some of the adults, though, math classes were in their distant past.



He then drew a simple (x, y) graph with the x-axis labeled "income" and the y-axis was labeled "tax rate." If we make m a flat rate, say .10 or 10%, and b equal to zero, then we can draw a horizontal line across the graph. For every dollar of income, you pay a tax of 10%. What can be simpler than this? Anyone want to take a stab at why this wouldn't work as a way to tax income?"

Jack, who was a CPA, spoke out, "It wouldn't generate enough revenue to finance the government. The problem is that the idea is deceptive. It shows the high-income taxpayers at the right-side of the line paying higher tax amounts, but there are too few of them to produce enough revenue for government expenses. Population needs to be factored in."

"OK," Claire said, "What you're saying is that there aren't enough rich people to produce the amount of revenue needed and not enough total income to be taxed at a flat rate among everyone else."

Julie said, "Maybe if the flat rate were a lot higher, but no one would like that."

"You've got it," Charlie said. "So, if a flat rate tax won't work, what will?"



Seeing confusion on some faces, Charlie drew another graph, one with a bell-shaped curve. He labeled the curve as "population vs. income." This curve had a short tail on the left, that quickly climbed to a peak and then descended to a long tail on the right.

There was silence at the table. Then Emily spoke up. "The tax rate curve would have to account for the total taxable income of the population at each income level."

"Yes, but how would you draw a graph of that?" Mathew asked.

No one answered him. "Wouldn't you have to start with actual population and income data from the IRS?" Al asked. "Then maybe you could figure out an equation—one in which a person's tax rate is itself a function of income."



Jack stood and came around the table and asked if he could make a graph. Charlie readily agreed. He then drew a graph of tax rate versus income and added a curve that began at the origin, climbed slowly at low incomes, then rapidly, and then climbed slowly to 100% at the highest income level. "What I'm saying here is that low-income people should be taxed at a very low rate because they don't have much income, that middle-income people should be taxed at a rate that produces most of the revenue needed because that's where most of the population and most of the income is, and the rich should be taxed at an ever increasing, progressive rate, out to 100% at say $1 trillion."

"Or 100% at $100 billion if a steeper rate of increase for high incomes is desired," Jack said. "That high limit is a crucial parameter of our formula."



"Does the curve have to start at a rate of 0% at $0 of income?" Julie asked. "If it started at say -25% at $0 and then climbed to 0% at say $20,000, this could be the basis for a negative income tax that helps out the poor."

"And like the current Earned Income Tax Credit, it would encourage them to work to better their lot in life," Jack said.

"We want the whole thing to be progressive, because the alternative—tax brackets—are not really progressive," Sylvia added.

"So why do we have tax brackets?" Claire asked. Charlie answered. "We have tax brackets because computers didn't exist when the income tax was initiated in 1913. There was no easy way for people to determine how much they owed in taxes, or for the government to manage the enormous volumes of data."

"But neither of those factors exist today," Claire said. "So, why do we still use tax brackets?"

"Government inertia and Republican greed—those ever-present brakes on progress," Mark answered.

"As we've seen, it's to the advantage of the one-percenters," Jack said.

Charlie adjourned the meeting after an hour so everyone would have time for lawn games with the kids.

Charlie was in his suite changing into shorts and a T-shirt when Julie entered, threw her arms around his neck, and gave him a kiss. Still hugging him, she said, "I think it's going pretty well. I know that you've worked out where you want the tax discussion to go."

"Yeah, the thing is, if I can't get this group to agree, I'll never be able to sell it. So, hopefully, nice and slow will get us all there."

**An income tax formula**

When the group reconvened after supper, Mandy and Jack announced that they had devised a mathematical formula that would produce the tax rate curve they had been discussing. Jack wrote it on the projector tablet."

**Tax = (k × (1.059463log(income) - 1) × Income)**

 **- Offset**

"Good grief!" Sylvia exclaimed. "Where did that come from? And what does it mean?"

Jack chuckled: "It's what happens when you challenge a mathematician." He continued: "The first thing to note is that personal and corporate income—taken together—in our country ranges from zero to almost one-hundred billion; that's eleven orders of magnitude—twelve if we set the 100% tax rate at one trillion. So, to be practical, our formula has to be based on the logarithm of the income Anything else would be too cumbersome."

"Okay, but were does that weird number come from?" Julie asked.

"It does look weird," Mandy agreed. "Jack started with the idea that that the tax rate had to be some number raised to the log of income and that number had to be a root of the number two. So,

**tax rate = (xlog(income) - 1)**

"Why minus one?" Julie asked.

"That's to get the tax rate between zero and one—0 for 0% at zero income and 1 for 100% at one trillion of income."

"I'm with you so far, but back to the weird number, please," Julie said.

Mandy continued: "Okay, if tax rate = 100% (i.e., 1) at one trillion dollars, and the logarithm of 1 trillion is 12, then plugging those numbers into the tax rate formula: "

**1 = x12 - 1**

**2 = x12**

**x = the 12th root of 2**

**x = 1.059463**

**Thus, for any income between $0 and $1 trillion,**

**tax rate = (1.059463log(income) - 1)**

which gives us the following curve, which she drew on the tablet."



"It doesn't look very much like our last graph, but it does increase progressively from an income of $0 to $1 trillion. The small lines above and below are what the k factor in the equation can do to this curve. It can make the tax rate higher or lower. Say we calculate everyone's taxes and add them all up. What if the result is too much tax revenue or too little, as determined by the government's budget? Well, we change the value of k, up or down, recalculate until revenue equals budget.""

"What about the offset? How is that determined?" Charlie asked.



Jack drew another graph: "It, too, is a function of income, but calculated via a simple algorithm. The offset rate stays at a plateau value until income reaches the plateau limit, and then decreases to 0% when income reaches the phase out limit. Subtracting the offset from the base curve makes the tax rate curve look like this." He then replaced the previous graph.



"Thanks Mandy and Jack," Charlie said. "This gives us a starting point for the modeling we'll do. Modeling these ideas will tell us if we're on the right track. Next, let's consider wealth inequality.".

"But not tonight," Julie said. "It's time for games with the kids."

**Wealth inequality**

After three days of meetings about tax reform, it was time for a break and vacation time with younger family members. Everyone was given a choice of an all-day tour of the bay area: South to Santa Cruz and the Monterey peninsula, West to Half Moon Bay for sailing and whale watching, North for a tour of San Francisco, or further North to the Muir Woods and Napa Valley wineries.

Charlie opted for the Half Moon Bay tour that was chosen by all the teenagers. He enjoyed sailing and genuinely enjoyed the energy and enthusiasm of the kids. Julie took the Monterey peninsula tour with the younger children, who enjoyed the rides on the Santa Cruz Boardwalk. The rest of the adults, not surprisingly, chose the Napa Valley wineries. The day's activities concluded with a bonfire near Saisekiba's pond, with everyone exhausted.

The next morning after breakfast, the adults, Emily, and Matt reassembled in the conference room. Charlie began the meeting: "I hope you all had fun yesterday. I sure did. The kids were all over the sailboat and really enjoyed it when the wind came up and the boat tacked so far that they had to hang on. And yes, we did see whales."

"My kids all enjoyed the rides and lunch on the boardwalk," Julie said. "I was really proud of them."

"How many wineries did we visit?" Mark asked Mandy.

"I think it was four, but I got a little bit tipsy and may have lost count," she said with a laugh.

"Well great," Charlie said. "We needed a mental break. I hope some of you stayed sober enough to do some thinking about our next topic, namely wealth inequality. Who wants to start by laying out the facts of the matter?"

Everyone was quiet, looking sheepishly at each other, hoping someone else would take on the topic. Eventually, Emily raised her hand and got the nod to proceed from her dad: "I woke up early this morning and logged onto Wikipedia where I found an article entitled 'Wealth Inequality in the United States.'"

"It's a subject that is worrying a lot of people," Charlie said. "How did the article define wealth?"

"It's pretty much what you would think," Emily said. "Wealth is the sum of the value of a person's possessions: houses, cars, savings, and investments in stocks, and bonds, minus any debts."

"Okay," Julie interjected, "but what we're interested in is the distribution of that wealth across the population. It's not that everyone has the same amount of wealth, is it?"

Matt chuckled, "Just look at this place to see it isn't."

"Let's hold a discussion of our share of the national wealth to later, after we understand the problem," Charlie said. "For now, back to you, Emily. Lay some statistics on us."

"Okay, here it is," she said. "50% of the households hold less than 2% of the wealth, while 10% hold 70%, with a distribution that looks exponential and is likely to get even more so as wealth becomes ever more concentrated. In fact, only 1% possess 40% of all wealth and only a few people own most of that."

"Yikes," exclaimed Claire Holman, "I knew there were people with a lot of money, but this is ridiculous. That has to have a profound effect not just on our economy, but on our whole political system and on our democracy."

"You're right about that," Mark Holman said. "It's the old saying, "He who has the gold makes the rules.'"

"But why is wealth distributed in this way?" Claire asked.

"It's the fundamental nature of capitalism," Mark said. "Take the stock market for example, it reports the current value of a stock—whatever someone will pay for it. If you pay $1000 for a share of company X and the market value of that share goes up by 10% because other people want to buy it, your investment is then worth $1100, and then if it goes up another 10%, it's worth $1210, and so forth. The point is, the more you have, the faster it can grow, and this can produce truly absurd results, as Emily has been telling us."

"That's true, but it doesn't explain how the really rich acquire their wealth, does it?" asked Claire.

"No, it doesn't," Rita said. "I asked Charlie how he'd done it. He explained that the best way to get rich is to create products with great appeal to mass markets, things like smartphones and internet services like Facebook, to hold patents that everyone else needs, and to own and control the operating platforms that everyone else's products depend on."

"That's what you did, right grandpa?" Emily asked.

Charlie shrugged and nodded his head.

"There's a lot more to it than that," Randy Newman said. "More than fifty really bright people have received Nobel Prizes in Economics trying to figure out the distribution of wealth in an economy."

"Maybe that's the problem," Al Durand remarked. "Maybe all these bright people can't see the forest because of the trees. They each tackle some aspect of capitalism without asking if there might not be something better."

"That's what Karl Marx tried to do," Charlie said. "The result was the Soviet experiment with communism. Look at how that turned out."

"Was that Marx's fault or the fault of the power-hungry Bolsheviks who put their own spin on *Das Kapital*?" Al asked.

"Really, Dad," Charlie exclaimed with a grin, "are you defending Marx?"

"No, I'm not defending Marx," Al said, "but it helps to understand what other people have tried, why they tried it, and what the results were, doesn't it?"

"Granted," Charlie said, "but we're not here to design a new system of economics, only to see if something can be done to make American capitalism fairer."

He paused before looking at Matt: "You've been quiet this morning, Matt, care to take a stab at summarizing the problem?"

Matt had been leaning back in his chair relaxing but taking in everything that was said. He straightened up in his chair: "The problem is that the amount of wealth in the United States is not distributed across the population in a way that is fair or just. Too much of the wealth has been concentrated in the hands of too few people and because of compounding is getting ever worse—as Emily said. This puts too much power in the hands of the obscenely rich, giving them effective power over our democracy."

"And it leaves the poor struggling paycheck to paycheck, never sure they'll be able to pay their rent or feed their children," Sylvia said.

"An excellent summary, Matt," said Rita Durand said. "Now what do we want to do about it?"

Matt, thinking the question had been addressed at him, got flustered: "Uh, Grandma, you do know I'm a high school kid, right?"

"Of course, my dear boy, but that doesn't mean you can't come up with one possibility, does it?"

Matt folded his arms over his chest and frowned while thinking. Emily gave him an elbow in the ribs, as if to say she wanted to help.

"Okay," Matt said. "Here's the most obvious, and obviously wrong, solution. Add up everyone's wealth, divide it by the size of the population and distribute the result to everyone."

"You're right, it obviously wouldn't work that way, but how could it be made to work?" Rita asked.

Emily had clearly gotten into the spirit of things and was bouncing up and down in her chair: "You'd have to put everything into a big pot and then, instead of giving people particular stocks, bonds, or whatever, you'd give them a share of the pot."

Rita followed up: "But who would control the pot itself and any of the things in the pot? Isn't that just another attempt at communism?"

Al added: "And why would anyone want to work if all they had to do was collect whatever dividends their share of the pot produced for them?"

"If I may add one more problem with this idea," Sylvie said, "The rich would quickly pack their bags and take it all to some island in the South Pacific. Then there wouldn't be any executives to run the businesses and those businesses would soon fold."

"Just like in *Atlas Shrugged*," Charlie said. "When the executives leave, everything grinds to a halt, but don't take Ayn Rand too seriously, Syl, it's just a novel—not a very good novel."

Sylvia blushed, because she had just finished reading it.

Charlie called time out for a break so people could get coffee or go to the restrooms. He beckoned Emily and Matt to come to him: "You kids are doing great. I'm really proud of you. I'm glad you asked to join our discussions." He pulled them into a big three-way hug. "Keep up the good work!" The kids were beaming. They knew Grandpa Charlie was really important and his praise was worth gold to them.

Back in session, Charlie said, "We know what wouldn't work to make wealth more equitable, but what would?"

Julie spoke up: "Just taking all wealth and divvying it up won't work, but what about a yearly wealth tax, say 5% of everything over $10-million?"

"Okay, but that still leaves the problem of what to do with it?" Charlie said.

"How about using it to eliminate the national debt?" Rita asked. "That would also reduce our perennial budget deficits by eliminating interest payments on the debt."

Mark Holman chuckled: "Sure, but who do you think is holding most of that debt? The rich. You'd be solving the Federal deficit problem, but you'd be taking money out of one pocket and putting it into another."

"What about using it to pay for infrastructure improvements?" Sylvia asked. "You know, our roads, bridges, dams, and railroads really need a lot of work."

"It would create jobs for a lot of people, too," Mark said.

"And some of it could also be used to improve public education and help pay for childcare, medical care, and college educations," Al said. "The Republicans would hate that. They'd be screaming about creeping socialism, their bugaboo about everything."

"Okay, but that way it doesn't cycle back to the rich, unless they get contracts for all that infrastructure work. But that's okay, I guess" Mark said.

"Let's talk some more about that 5% wealth tax Julie mentioned," Charlie said.

"It wouldn't have to be 5%," Julie said. "It could be whatever Congress wants. And it wouldn't have to be a tax on everyone's wealth—maybe just on wealth over $10 million or $1 billion."

Bruce was normally silent during discussions, partially because he wasn't as well educated as everyone else in the room, including Emily and Matt. He now took advantage of a momentary silence: "Haven't we discussed flat taxes before and concluded they aren't just, that a progressive tax would be better?"

Jack Newman nodded his head in agreement: "If we want a wealth tax that is progressive across eight orders of magnitude, from $10-million to $1-quadrillion, we already have a formula that will do the trick." He walked to the front of the room and wrote on the white board the formula"

**Wealth tax = (k × (1.04729log(wealth) - 1) × wealth)**

 **- offset**

"where 1.04729 is the 15th root of 2, corresponding to a 100% tax on $1 quadrillion. Offset is a negative wealth tax that is calculated based on a person's wealth, similar to what we did for a negative income tax. It is in effect a means of transferring wealth."

So how should we handle negative wealth?" Rita asked. "Haven't we already dismissed the idea of shares in a big fund managed by the government?"

"You're right, Mom," Tim said. "How about individual accounts in indexed, total-market stock and bond mutual funds? That would be similar to the accounts many people already have."

It hadn't occurred to Charlie that the same formula as for income taxes could be used. This made it easier to explain: "So we have a general curve that can adjusted up or down by its k factor. Thus, if the base rate for a wealth of $100 million is .35 and k is .5, then the wealth tax would be $17.5 million, a 17.5% wealth tax."

"And if someone's wealth is less than, let's say $100,000," Julie said, "They would get additions to their wealth accounts. The more they already have, the less their accounts would receive."

Jack said, "The big question, then, is what value of k to use. Should it be just high enough to finance infrastructure spending, or should it be high enough to reduce and inhibit the growth of excessive private wealth. Going back to your example, Charlie, if k is .1, then the wealth tax would be $3.5 million, leaving a wealth of $96.5 million. A year later, if it grew at rate of just 4%, it could easily be back over $100 million. So, if our goal is to permanently reduce obscenely large fortunes a bit at a time, then the k factor would have to be much higher, maybe .5 or higher.

"So," Charlie said, "we have a way to progressively reduce excessive wealth, funnel it to public projects, and begin to make poor people members of our "'ownership society.' That still leaves a lot of questions unanswered, but it's getting late and that's as far as this discussion can go today. I'll add it to the modeling work we're going to do for progressive income taxes."

"Do you really think a wealth tax would ever be enacted by Congress?" Julie asked. "There would be a tremendous amount of opposition."

Jack agreed: "True, but we have to start somewhere. Modeling is our next step."

**Tax models**

Mandy and Jack put their heads together and produced an essay. With Mark's help, they also attempted to create a spreadsheet model that would demonstrate the feasibility of the income tax proposal. They used data published by the IRS as the basis for their model but ran into trouble where the IRS only published summary data about individual income taxes. While the IRS provides income and population data for the middle class, there was only a summary for those with incomes below $5,000 or incomes above $10 million. They also found it difficult to obtain data about business incomes and taxes. They presumed such data was available to the IRS, but only if you knew where to find it.

Their spreadsheet model, as incomplete as it was, encouraged Charlie to take the next step in validating the proposal. He phoned Jane Groveland, the CEO of CARPA, the Civilian Advanced Research Projects Agency, one of his pet companies. He arranged for a meeting to be held at her headquarters in Reston, Virginia. He asked her to bring to the meeting an expert on tax data, an expert in computer data modeling, and a mathematician.

When Mandy, Jack, and Mark arrived at the meeting, Charlie introduced Jane as the CEO of CARPA, and he introduced them as the authors of the tax reform essay. Jane introduced Doctor Joseph Sandman, an Economics professor at George Mason University, who specialized in tax policy issues, Doctor Robert Jackson, a Mathematics Professor from Georgetown University, Janice Ulrich, a tax data expert from the IRS, Tim Schmidt an expert in computer modeling from the National Weather Service, and Douglas Deevers, a CARPA project manager. They had all read Jack and Mandy's essay and signed non-disclosure agreements in advance of the meeting. Charlie wanted this project to be low key until high quality data-driven models validated it.

Jane turned to Charlie and asked if he had any initial comments.

Charlie looked at each person seated at the conference table, making eye contact with each of them: "This may seem like an improbable project, one with a high risk of failure. It is hard to change something that has evolved over the course of a century. It's hard to get people to give up all the deductions, credits, and exemptions they believe they need. And it's hard to change something that accountants, lawyers, and tax preparers depend on for their living.

"We need to change the vocabulary used to talk about taxes, away from deductions and credits to one about the simple parameters of a universal tax formula. Everyone agrees that the current income tax system is broken, that it is unjust and unfair. I contend that it would be impossible to change the current system enough to make it just and fair. It's better to start fresh with new thinking, even if the probability of success initially appears low.

"So, this project is to establish the validity of the ideas in Jack and Mandy's essay through computer data modeling and then through a real-world test case. I hope you will all commit to making the modeling part of the project a success."

Charlie could see a guarded amount of enthusiasm for the project. He asked if anyone had comments about the tax essay.

Dr. Sandman spoke up first: "I must say, you people think big. I'm more used to evaluating detailed changes to some part of the tax code, but you want to replace the whole thing. And fold Social Security and Medicare financing into it too. I'm impressed by the scope of your thinking, but I have doubts about its practicality. There are so many people and organizations whose livelihoods are based on the complexity of the tax code. In any case, these are fascinating ideas, and I, for one, would love to be involved in modeling them."

Charlie could see there was general agreement with this assessment. He had reviewed their resumes before the meeting and was confident he had a good team on the project. Doug Deevers then led a paragraph-by-paragraph review and critique of Mandy and Jack's essay, with its authors answering questions along the way. The proposal wasn't perfect, but it was a start.

After the meeting. Doug and Jane met each person individually. They offered Doctors Sandman and Jackson retainers as consultants. Janice Ulrich and Tim Schmidt accepted generous CARPA job offers that they just couldn't refuse.

Developing the model and populating it with data from the IRS took a year. This was followed by six months of runs of the model in which its parameters and formulas were tweaked. At the end, a paper was submitted to the *National Tax Journal* by Doctors Sandman and Jackson. A thorough rewrite of the original essay by Mandy and Jack, it included extensive reporting on the runs of the model, concluding that the proposal was feasible and merited a real-world test by one of the states. While Doug, Janice, and Tim were acknowledged as key contributors to the project, Charlie, Mandy, Jack, and Mark were deliberately not mentioned. That they had initiated and funded the project would come out eventually if it was a success.

**Beta testing by CARPA**

But models are not reality, as stated in the famous image by surrealist painter Rene Magritte of a tobacco pipe with the words, "This is not a pipe." The income tax proposal needed to be tested against reality. A beauty of the proposal is that it would work as well for a state as it would for the federal government. A contract was signed with Minnesota, a state with a mixed urban and rural population and a wide variety of businesses, both large and small. This allowed them to perform an experiment using live data.

The Minnesota Department of Revenue sent a letter to each person and business in the state stating that they were legally required to participate in a state-wide experiment in tax reform that was being conducted under contract with CARPA, and that this experiment was being run in parallel with regular tax collections. This letter contained the address of an internet app that could be downloaded to a smartphone or computer. It first asked whether the taxpayer was a person, a family, a non-profit, a partnership, a small business, or a corporation. It then provided tailored screens in which a taxpayer's situation was better defined. A theoretical tax could be determined from this data. For example, it asked about the gross income of a family, the number of members in the family, and how the family's total income should be transferred among its members to minimize the family's total taxes.

A run of the model calculated theoretical taxes for each person and business in the state, according to the model's formula. These taxes were then summed for the entire state and compared with a predetermined budget amount provided by the Minnesota Department of Revenue. Taxes were then recalculated with varying k factors and summed until tax revenues equaled the state's proposed budget amount.

With great confidence, the overall results were reported in both Minnesota and national news media, and a trade-press book was published. This included graphs showing for typical ranges of income the difference between the old and the new tax methods. The Minnesota Forum Clubs were instrumental in promoting the tax reform proposal. After months of debate, a Comprehensive Income Tax Reform bill was signed into law in Minnesota for implementation the following year. A key feature of this bill was that it completely divorced Minnesota's income reporting and taxation from the still byzantine federal tax system. Of course, there was intensive lobbying by tax accountants, lawyers, and business associations loath to give up their favorite loopholes.

Other states had been paying close attention to the Minnesota tax project. The governor of Wisconsin approached CARPA to be the next test case. He demanded CARPA pay for the beta test, just as it did for Minnesota. Jane was concerned about the greater cost of doing beta tests for larger states, like New York, Texas, and California. She decided to break the testing into its component pieces and then negotiate with the states as to which parts they were willing to pay for. Wisconsin agreed to pay for all communications with taxpayers. When CARPA proceeded to larger states, it would be a tougher negotiator, requiring them to pay more of the test phase bill for their state.

Over a decade, one state after another adopted variations of the proposal, usually after extensive modeling runs provided by CARPA. Finally, an amendment to the US Constitution was proposed by Democratic Representatives and Senators that required federal income taxation by formula.

This effectively eliminated the ability of politicians to affect income taxation except by means of the small number of parameters in the formula. Their job was then limited to controlling government spending. Donald Trump saw his favorite tax avoidance tricks disappear in a puff of legislative smoke that he knew had been engineered by Charlie Durand. He vowed to get even, to hit Charlie twice as hard as he had been hit.

For Charlie, the most important question remained unanswered. Would the redistribution of income through this reform of income taxes have the effects he most wanted to see, namely a reduction of the number of people struggling economically, and therefore, a reduction in the number of people who might be tempted to vote for a conman. Only time would tell. This called for another round of modeling by the CARPA team.