A STORY OF INTEREST & Supervision!

FEDERAL RESERVE BANK OF NEW YORK
...WHERE OUR JOB IS TO HELP MAINTAIN THE HEALTH AND FINANCIAL STABILITY OF OUR PLANET'S ECONOMY.

I'M WHAT'S KNOWN AS A BANK SUPERVISOR.

THE NAME'S RALLO.

AS A BANK SUPERVISOR, I DO SOME PRETTY IMPORTANT WORK...

**GOALS**

of BANK SUPERVISION

1. SAFETY AND SOUNDNESS IN THE OPERATION OF FINANCIAL INSTITUTIONS
2. STABILITY IN THE FINANCIAL MARKETS
3. FAIR AND EQUITABLE TREATMENT OF CONSUMERS IN THEIR FINANCIAL TRANSACTIONS

WELL, TO ME, IT'S VERY EXCITING!

I MEAN, JUST LOOK AT ALL THE DIFFERENT TRANSACTIONS HAPPENING IN OUR BUSY ECONOMY...

**GRAND OPENING**

BY DOING MY PART TO KEEP BANKS SAFE AND SOUND, I HELP MAKE ALL THIS POSSIBLE.

RALLO, OLD BUDDY!

H-H-UM?

IS THAT... CYBOB??

YO! I THOUGHT THAT WAS YOU!
Wow, Cybo! I don’t think I’ve seen you in... 7,385 days, 6 hours, 5 minutes, 7 seconds.

The last day of summer camp!
RIGHT. OF COURSE.
Now are ya, old pal?
I’m doing great!

We should catch up...
LET ME TAKE YOU TO LUNCH IN SKY CITY!

Sky City?!

Isn’t that place a little expensive?
Don’t worry about that. It’s my treat!
WOW... A CHANCE TO SEE SKY CITY!
AMAZING!
THREE HOURS LATER...

WILL YOU BE HAVING SEVENTHS, SIR?

NO. DEFINITELY NO.

TA-DA!

UP, PARDON ME, SIR...

YES. MY GOOD MAN!

I'M AFRAID THAT YOUR CREDIT CARD HAS BEEN DECLINED.

IT APPEARS THAT THERE ARE INSUFFICIENT FUNDS TO PAY FOR THE MEAL.

NOT TO WORRY...

I HAVE MANY MORE!

I'M NOT REALLY SURE WHAT ALL THIS WRITING IS ABOUT. BUT HERE'S THE CARD...

UM, I MAY HAVE A COUPLE BUCKS...

NOT NECESSARY! I HAVE AN OFFER FOR A BRAND NEW CREDIT CARD RIGHT HERE!

WAIT! THAT WRITING IS THE CONTRACT—THE DETAILS OF YOUR AGREEMENT WITH THE BANK THAT ISSUED THE CREDIT CARD.

LET ME SEE THAT FOR A SECOND...

THANK YOU, SIR.
DO YOU HAPPEN TO KNOW WHAT YOUR INTEREST RATE IS?

WHAT’S AN INTEREST RATE?

AN INTEREST RATE IS THE AMOUNT THAT THE CREDIT CARD COMPANY WILL CHARGE YOU ON TOP OF THE AMOUNT YOU ORIGINALLY BORROW, AND...

HOO BOY!

THIS INTEREST RATE IS OUTRAGEOUSLY HIGH!

PERFECT!

NO, THIS IS... THIS IS VERY NOT PERFECT!

YOU MEAN THEY’RE NOT JUST LENDING ME THIS MONEY FOR FREE?

NO. IT’S NOT FREE. IN ADDITION TO THE LOAN, YOU’RE ALSO PAYING A PERCENTAGE OF THE LOAN AMOUNT, AND A HIGH PERCENTAGE AT THAT!!

AND, YOU’RE NOT JUST PAYING SIMPLE INTEREST. YOU’RE PAYING COMPOUND INTEREST?

IS COMPOUND INTEREST BETTER?

IN THIS CASE, IT IS NOT.

WELCOME TO SKY CITY

YOUR TREAT?

YEAH, I’LL TREAT THIS TIME.

BUT, LISTEN. I’M GOING TO SEE MY FRIEND FLORA GIVE A TALK ON RESPONSIBLE CREDIT PRACTICES THIS AFTERNOON. SHE CAN EXPLAIN IT BEST. WHY DON’T YOU CHECK IT OUT WITH ME?
It’s easiest to think of compound interest as “interest on interest.”

So, it’s the interest investors earn on their original investment... plus all the interest earned on the interest that has accumulated over time.

Let’s say you invested $100 and earned 10 percent interest per year. Let’s look at how much more you would make if you earned interest on that interest over 20 years.

But keep in mind, if you borrowed $100 over 20 years, you would have to pay that much more with compound interest.

Psst! Flora, is it time for Ben Franklin yet?

It’s not always bad to borrow. Borrowing can help you start a business, buy a home, or invest in your future. But you gotta be careful.

Not yet, Glix. Now, let’s look at a real-world example....

My parents and our friend Lahnna’s mom and dad. You’ve made some wise investments in the past. Tell us a little bit about them.

Well, honey, a long time ago your father and I invested some money in Lahnna’s flying vehicle company. And over time, she did such a good job with her business... What can I say, I’m good!

Our investment averaged an annual return of 15%. So...
...AFTER 35 YEARS, IT HAS Risen TO MORE THAN $1 MILLION!

HOW ABOUT NOW?

NOT YET. GLIX, FIRST. LET'S LOOK AT SOME OTHER EXAMPLES.

ASTONISHING.

WOW!

OH BOY!!

WON'Task FOR VOLUNTEERS, BUT WHY NOT. COME ON UP, MR...

I WASN'T ASKING FOR VOLUNTEERS, BUT WHY NOT. COME ON UP, MR...

CYBOB!

I DON'T NEED TO TELL YOU. YOU CAN JUST READ IT OFF OF MY COMMERCE CHIP.

OH, GREAT! We CAN JUST PLUG This INTO OUR PRESENTATION.

LOOKS LIKE YOUR DEBT IS GOING TO DOUBLE, THEN TRIPLE, THEN...

OKAY... HUH. IT LOOKS LIKE YOU'RE CARRYING QUITE A BIT OF DEBT... AT A COMPOUND INTEREST RATE OF... YIKES!

SO, IF WE PROJECTED THIS INTO THE NEXT COUPLE OF DECADES...

A LOT OF

DEBT!

WHOA. THAT CAN'T BE RIGHT.
Later that day...

I really messed up how, didn’t I?

Why didn’t anyone ever tell me this stuff?

Well, they did. It was just in really, really small writing.

But listen, it’s nothing to feel bad about, Cybob. You just need to work on your solvency.

Okay, phew — where can I buy some solvency?

It’s not like that. Solvency means that your assets, or what you have, add up to be more than your liabilities, or what you owe.

Instead of spending so much money, you need to start saving.

But if I don’t spend, how will I get all the stuff I want?

You have to think about your wants versus your needs, for example. Did you really need to order three ice cream sundaes?

To be honest, I don’t even have taste buds.

You know, I believe it was Ben Franklin who once said...

Hold that thought, Glux.

Looking at your finances, Cybob. I see a few opportunities to economize and start paying down your debt.

Really? Such as?

Well, how about here... maybe you don’t need to be purchasing so many golf shoes?

Not my golf shoe collection! Those are collector’s items!

But you don’t play golf, and you don’t have feet.

I wear them around my neck. It’s a very sporty look.
...you're saying that "wants" are simply the things that I want, whereas "needs" are the things that I actually need.

Yes!

Finally!

And once my needs are met?

Once your needs are met, you can still buy some things you want as long as they fit into your budget.

Great!

Now, what's a budget again?

It's this thing we've been working on! A plan for how you will spend your money.

A budget is a statement of estimated income and expenses for a period of time.

Looks like if I stay within this budget, before long I'll be out of debt. Then I won't have to pay so much in compound interest.

This sounds like a fun challenge. I think I can do it!

And then you can start earning money from compound interest on your savings.

You know, I believe it was in Poor Richard's Almanack that Ben Franklin wrote-

Hey!!!

Hey, something's going on outside!
SOMETHING'S HAPPENING IN SKY CITY!

ONE OF ITS BANKS IS FALLING!

WAIT... THAT'S MY BANK!

MAYBE WE CAN HELP, WE SHOULD GET UP THERE.

HOLD ON. I'LL CALL MY CAR.

CYBOB, IS THIS A DIFFERENT CAR?

THIS IS MY EVENING CAR.

DO YOU REALLY THINK WE MIGHT BE ABLE TO HELP?

SKY CITY DOESN'T HAVE BANK SUPERVISORS LIKE WE DO ON NOVUS. SO MAYBE THEY COULD USE OUR ADVICE.

WELCOME TO SKY CITY
WAIT! You’re those famous economic experts from down on Novus, aren’t you?

WELL...

YES, WE ARE!

WONDERFUL! Let them through! Maybe they can help us with this mess.

SO, the building’s drifting down because we can’t quite afford to pay our hover bill right now.

WHY NOT?

BECAUSE WE’VE MADE A LOT OF LOANS AND EXTENDED A LOT OF CREDIT, AND FOLKS HAVEN’T BEEN PAYING US BACK AS PROMPTLY AS WE ANTICIPATED.

THE NERVE OF SOME PEOPLE!
SO, DO YOU THINK YOU CAN HELP?

WELL, I AM A BANK SUPERVISOR DOWN ON NOVUS. CAN WE TAKE A LOOK AT YOUR BOOKS?

SURE, WHAT'S A BANK SUPERVISOR?

UH-OH...

BANK SUPERVISORS MONITOR, EXAMINE, AND INSPECT BANKS TO MAKE SURE THAT THEY ARE FOLLOWING REGULATIONS AND ACTING IN A SAFE AND SOUND MANNER.

OKAY, GREAT. NOW WHAT ARE REGULATIONS?

REGULATIONS ARE RULES THAT DICTATE HOW A BANK CONDUCTS ITS AFFAIRS.

OH BOY...

LOOKS LIKE WE HAVE OUR WORK CUT OUT FOR US. WHY DON'T WE START WITH A STRESS TEST?

GOOD CALL, FLORA.

MIND IF I Hook THIS UP, SO WE CAN TAKE A LOOK AT YOUR DATA?

HELP YOURSELF.

STRESS TESTER 7000

A STRESS TEST IS AN EXERCISE THAT WILL ALLOW US TO SEE WHETHER YOUR BANK HAS SUFFICIENT CASH—OR "LIQUIDITY"—AND RESOURCES— OR "CAPITAL"—TO CONTINUE LENDING TO HOUSEHOLDS AND BUSINESSES AND TO ABSORB ANY LOSSES.

THIS WILL HELP DETERMINE WHAT IMPACT A CRISIS WOULD HAVE ON YOUR BANK AND WHAT MAY HAPPEN IF THE SITUATION CONTINUES...
HMM. IT LOOKS AS IF YOU'RE NOT KEEPING ENOUGH CASH, IN CASE SOMETHING GOES WRONG.

CASH ON HAND (RESERVES)
TWO LOW!

STRESS TESTER
7000

YES, WELL, WE WOULD HAVE A LOT MORE CASH EXCEPT WE SPENT IT OR LOANED IT OUT. THAT'S WHY WE COULDN'T AFFORD OUR EXPENSES.

UNFORTUNATELY, OUR MODEL PROJECTS THAT, UNLESS SOMETHING IS DONE, YOUR DEBT SITUATION IS ONLY GOING TO GET WORSE.

SKY CITY BANK PROJECTION...

DANGER!

YOU CAN'T OVERRUN EXTEND YOURSELF LIKE THAT! HAVEN'T YOU EVER HEARD OF A BUDGET?

GULP.

I'M AFRAID IT GETS EVEN WORSE. YOU WON'T BE ABLE TO PAY BACK YOUR LOANS FROM OTHER BANKS, WHICH MEANS THEY WON'T HAVE THE FUNDS TO PAY THEIR OBLIGATIONS.

A CREDIT CRISIS! THIS WILL SPREAD FROM BANK TO BANK.
Soon, you won't be the only bank in Sky City who can't pay their hover bills.

Alert! Alert! Alert!

Uh oh, this crisis could affect Novus too, since we do so much business with Sky City.

Not only that...

Pop!!

They could also fall on top of us!

Welcome to Novus

Yikes! This stress test is really stressful!

What can we do?

Hm...
There are a few steps we can take. You see, banks provide two main services. They accept deposits and they make loans.

But, they have to be careful not to loan out more money than is needed to back up the deposits.

One goal we supervisors have is to promote safety and soundness in the operation of financial institutions.

And one measure that can be implemented to ensure that a bank continues to operate safely and soundly is something called “reserve requirements.” That is when a central bank sets the minimum amount of money, or reserves, that a commercial bank must hold.

**Reserve Requirements**

Because, first and foremost, banks should make sure that they’re keeping enough cash on hand to cover their depositors’ day-to-day needs, as well as any expenses that may arise.

What about a bank’s solvency?

Yes! That’s important, too. Banks need to ensure that they can absorb any losses that will occur if some people don’t pay back their loans — or worse, if a crisis arises.

Had we only kept more cash in reserve, all of this could have been avoided!

That may be true...

But I wouldn’t recommend reserve requirements as your only safeguard. I would also advise meeting regularly with bank supervisors, like Rallo here...

Galaxy’s greatest?

Galaxy’s greatest supervisor.

Bank supervisors can help conduct stress tests, like the one we just did, to help see how a bank will stand in a crisis.

And they can also examine your data and assess how well you’re managing your risks.

Because, you see, another goal of supervision is stability in the financial markets...
Now, financial stability requires many things, one of which is a smooth flow of funds between banks and the people who rely on the services banks provide.

Which reminds me of our third goal...

We supervisors also promote the fair and equitable treatment of consumers.

Excessive risk-taking on the part of banks can complicate this flow and cause the public to lose confidence—which in turn can have negative effects on the economy as a whole.

We all are! Let’s say, for instance, Ben Franklin here wants to deposit his savings in a bank...

I, Ben Franklin, would like to make a deposit! Can you help me?

Now, there can be differences in what information you folks at the bank know about the circumstances surrounding this transaction and what information the potential depositor knows...

Depositors and banks aren’t always on the same page, so to speak. Not all of their information is on the table.

Exactly.

People are busy. They have a lot going on. When people make a deposit, they can’t be expected to know everything about their bank’s activities.

That’s why many financial systems have a safety measure in place called “deposit insurance.” Deposit insurance guarantees that depositors will be protected from losing their money even if a bank is unable to pay them back.
That sounds good. But what about the bank? What prevents a bank from taking advantage of deposit insurance? If the deposit is guaranteed to be paid back, no matter what, what difference does it make how much the banks loan out or to whom they lend it?

All good questions.

It makes a difference because risky behavior, like loaning too much money, can lead to crashes and crises. Nobody wants that.

So, when supervisors like me examine banks on behalf of the depositors, we help identify and constrain any excessive risk-taking by the bank.

Lastly...

And I'm sorry to say this, my robot friend...

...but y'all probably shouldn't have lent so much money to Cybob in the first place — his spending habits were out of control!

Understood! No more loans for robots!

Hey!

Oh, no no no! — That's not what I meant! You can't favor one group over another. You must have non-discriminatory lending policies and procedures in place. But... just be wise about how much you lend so that you'll be paid back.

There it is. "Fair and equitable treatment of consumers."

Okay, that seems reasonable. We won't discriminate against any one group, but we'll be cautious of consumers who don't have good credit histories.

So we've got our eye on you, Cybob!

And he's got his eyes on you!

By bringing the community of Sky City together and implementing these changes...

The bank was able to remain solvent and restore confidence.
THE NEXT DAY...

IT'S A NICE PLACE TO VISIT, BUT A LITTLE ON THE FANCY SIDE FOR MY TASTES.

I JUST FEEL A LOT BETTER NOW THAT SKY CITY'S ECONOMY IS STABILIZING. A BANK SUPERVISOR'S WORK IS NEVER DONE, BUT I MUCH PREFER THE GOOD TIMES.

HEY, CYBOB'S BACK!

MOM? DAD?

THAT'S NOT CYBOB...

WHAT ARE YOU DOING IN CYBOB'S CAR?

HE SOLD IT TO US. IT'S BASICALLY BRAND NEW!

YEAH, HE'S SET UP A YARD SALE AT THE EDGE OF TOWN—HE'S GOT LOTS OF STUFF FOR SALE.

IN ADDITION TO THE CAR, I GOT A GREAT DEAL ON GOLF SHOES AND THIS DESIGNER SWEATER.

AND I GOT THIS VINTAGE CARL SAGAN ALBUM!

GET A LOAD OF OUR NEW RIDE!

HMM... WANNA GO SEE THE YARD SALE?

SURE!

BYE MOM, BYE DAD—ENJOY THE NEW CAR!

WHY'S GLUX DRESSED LIKE AN EIGHTEENTH CENTURY AMERICAN EARTHLING?

I THINK THAT'S HIS NEW LOOK.
This is an impressive collection.

Hey, Cybob, where did you even find the time to buy all this stuff?

I don't require sleep.

And gimme a break, will ya? I've learned my lesson. I'm liquefying my saleable assets!

This time next year, I'll be saving and investing—then compound interest will be working for me!

Hey, I'm proud of you, old friend!

I have you to thank!

Looks like Cybob's got his financial act together, and so has Sky City. I guess that about wraps things up. Nice work, team!

But wait! There's still one page to go. What should we do with it?

*ahem*—pardon me...
Gather 'round, ye one and all...

Hear ye, hear ye. I once famously said, "Money makes money. And the money that money makes, makes money." Now, as a way of illustrating that point, let me relay to you a tale...

'Twas in the year 1790. On Planet Earth, in a young country called the United States of America. I, Benjamin Franklin, bequeathed a gift of $1,000 to each of my two favorite cities, Boston and Philadelphia.

I stipulated that the money was to be invested, and much of it could not be withdrawn until two specific dates. The first, 100 years after the date of the gift... And the second, 200 years after the date of the gift...

And after 200 years, in 1990, they received the remaining balance — which had compounded in that time to approximately $6.5 million in total!*


Precisely, Mr. Cybob! Wise money practices worked for me, and they can work for you too!

Thanks a lot, Glix. That was worth the wait!

I do what I can.
STAY TUNED...
MORE ECONOMIC ADVENTURES ARE ON THE WAY!

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