ONCE UPON A DIME

FEDERAL RESERVE BANK OF NEW YORK
Way, way out—at the edge of the universe—there’s a little planet called Novus.

Hey, there it is!

The next time you find yourself way, way out at the edge of the universe, you could do a whole lot worse than spend a day on Novus.

The folks here work hard, but they also know how to have a good time.

Are you ready for the party tonight?

I’ve been practicing my dance moves!
THROUGHOUT NOVUS, THE CITIZENS TRADE WITH EACH OTHER TO GET THE DIFFERENT THINGS THEY NEED AND WANT.
I'll trade you this fish for a jar of honey mustard.

I'll agree to that!

Two robot wheels for two cakes?

Make it three wheels and you'll have yourself a deal.

Repair your clock for a new pair of socks?

*Translation: "Sure."

This system of trading goods and services is called "barter," and it works pretty well -- as long as things don't get too complicated...
NOVUS was governed by the wise President TILLI, and each year she organized a great festival to showcase the planet’s latest innovations and achievements.

NO NEED TO TWIST MY WING—I’D LOVE TO ATTEND THE FESTIVITIES!

WONDERFUL! EVERYONE WILL BE THERE!

OH—THAT REMINDS ME...

RALLO! SOFT DRINKS

RALLO, DEAR, I’D LIKE TO GIVE ALL THE GUESTS TONIGHT A GIFT. A SOUVENIR TO COMMEMORATE THE OCCASION! IS THAT SOMETHING THAT CAN HAPPEN?

NO PROBLEM! LEAVE IT TO ME!

RALLO WAS A TALENTED ARTIST, BUT ALWAYS GOT A LITTLE NERVOUS WHEN STARTING A NEW CREATION.

WHAT HAVE YOU GOTTEN YOURSELF INTO NOW, RALLO?

A GIFT FOR EVERYONE ON NOVUS?

BUT THAT WOULD BE SO MANY GIFTS!

Oh geez.

THERE SURE ARE PLENTY OF THESE RIVER ROCKS THOUGH. MAYBE I CAN DO SOMETHING WITH THEM...
MEANWHILE...

PRESIDENT TILLI ORDERED MORE FLOWERS THAN EVER THIS YEAR. THERE’S NO WAY I CAN GET THEM ALL TO THE PARTY ON TIME!

UNLESS...

FLORIST

NUTS BOLTS THINGS

MECHANIC

HEY, LAINA. HOW MANY FLOWERS WOULD I HAVE TO TRADE YOU FOR ONE OF THOSE WHIRLY-DOO BACKPACKS YOU HAVE?

SORRY, ORICK. I DON’T NEED ANY FLOWERS.

BUT I COULD REALLY USE SOME DOUGHNUTS! I’VE BEEN TOO BUSY TO EAT BREAKFAST THIS MORNING.

AND SO OFF ORICK WENT, WITH SOME OF HIS FRESHEST PICKS, HOPING TO TRADE FLOWERS FOR DOUGHNUTS.

BUT HE SOON FOUND THAT BKR-3000, THE ROBOT BAKER, WAS ALSO BUSY PREPARING FOR THAT EVENING’S FESTIVAL.

OH BOY.
FLOWERS?! BZZT! WHAT I REALLY NEED ARE EGGS. EGG LEVELS DANGEROUSLY LOW!

I WILL EXCHANGE 2.5 DOUGHNUTS FOR EVERY 3 EGGS YOU BRING ME.

SO ORICK WENT TO FARMER FRAG TO GET SOME EGGS, TO TRADE FOR DOUGHNUTS, TO TRADE FOR A WHIRLY-DOO.

WHAT I NEED MOST RIGHT NOW IS A BIGGER CHICKEN COOP. LOOK AT THE SIZE OF THESE GUYS!

UGH. I SURE HOPE VENNY THE CARPENTER NEEDS FLOWERS.

BARTER WAS GETTING COMPlicated.

YOU DON'T HAPPEN TO HAVE A SIZE 1 SOCK, DO YOU?

I'M SORRY, VENNY, ONLY FLOWERS.

CAN YOU SEE IF MY TWIN BROTHER, MO. THE HAT MAKER, HAS ANY EXTRA THREAD AT HIS SHOP?

SURE THING, JO.

THE DAY NEARLY LOST, ORICK NOW FOUND HIMSELF AT A HAT SHOP FOR HORSES...

YOU'RE FRIENDS WITH RENNA, THE FRUIT SELLER, AREN'T YOU? THINK YOU COULD BRING ME SOME APPLES FOR THESE FELLAS? THEY'RE GETTING A LITTLE HUNGRY.

OK.

HEY, ORICK, CHECK OUT ALL THESE ROCKS I'M CARVING FOR THE PARTY. MY BEST WORK YET!

CAN'T... CHECK OUT... ROCKS... MUST... KEEP GOING...
Hey, Orick! Look at all this fruit I need to get to the party...

...You don't happen to have a whirly-doo you can trade me, do ya? "Sigh" I'm right back where I started.

Toot toot!!

Hey, everybody! Are we having a party or what?

Well, that depends.
ONE BY ONE, THE CITIZENS OF NOVUS RELAYED THEIR TRADING TROUBLES TO PRESIDENT TILLI.

IT TURNED OUT ORICK WAS NOT ALONE.

WHAT A RIDICULOUS STATE OF AFFAIRS!

EVEN EVERYONE'S MAKING ALL THESE INDIRECT TRADES FOR THINGS THEY DON'T EVEN WANT!

ISN'T THERE SOME WAY THAT WE COULD ALL TRADE DIRECTLY FOR THE THINGS WE DO WANT?

WHAT IF EVERYONE AGREED TO ACCEPT ONE PARTICULAR THING IN EXCHANGE FOR ALL GOODS AND SERVICES?

THEN THAT THING WOULD HAVE VALUE FOR ALL OF US.

IT SHOULD BE SOMETHING WE CAN MULTIPLY FOR BIGGER TRANSACTIONS.

THE SAME WAY I MULTIPLY MY APPLES!

ONE THING, EH? A MEDIUM OF EXCHANGE FOR EVERY TRADE? THAT WOULD SAVE US A LOT OF TIME, BUT WHAT SORT OF THING WOULD IT BE?

WHAT ABOUT FISH? THERE ARE PLENTY OF THESE JOKERS SWIMMING AROUND...

WOULDN'T THAT BE A LITTLE TOO, UM... SHORTSIGHTED?

PLUS, THAT'S JUST GROSS.
HOW ABOUT MY CARVED ROCKS? THEY'RE SMALL, DURABLE, EASY TO CARRY, AND ASTONISHINGLY BEAUTIFUL.

BUT—COULDN'T SOMEONE CHEAT BY CARVING HIS OR HER OWN ROCKS?

NO ONE CAN IMITATE MY ONE-OF-A-KIND DESIGN. LOOK AT THAT CRAFTSMANSHIP!

I THINK RALLO’S ROCKS COULD WORK! RIGHT NOW WE HAVE TO TRADE SO MANY DIFFERENT THINGS, BUT IF WE ALL ACCEPTED THESE ROCKS, WE COULD DO IT MORE EFFICIENTLY.

DO IT MORE EFFICIENTLY! EXCELLENT! D.I.M.E.!!

ONCE EVERYONE AGreed ON THE DIME SYSTEM, TRANSACTIONS BECAME A LOT EASIER...

AND THE CITIZENS OF NOVUS LIVED HAPPILY EVER AFTER...

FOR A FEW YEARS...
10 YEARS LATER...  PLANET NOVUS WAS BECOMING PRETTY POPULAR.

I GUESS PLACES THIS NICE NEVER STAY A SECRET FOR VERY LONG.

CITIZENS NOW USED SO MANY DIMES THAT RALLO HAD TO USE A BUILDING TO SAFELY STORE EVERYONE'S DIMES IN THEIR OWN PERSONAL ACCOUNTS.

RALLO'S BUILDING, THE RIVER BANK, WAS THE FIRST PLANETARY BANK ON NOVUS.

SINCE DIMES MADE TRADING EASIER, BUSINESSES WERE ABLE TO GROW FASTER.

SOCIETY WAS DEVELOPING.

CRICK AND RENNA STARTED A FAMILY. THEY NOW HAD A DAUGHTER, FLORA.

FLORA HAD A FRIEND NAMED GLIX, WHO WAS VACATIONING ON PLANET NOVUS WITH HIS FAMILY FROM WAY ACROSS THE GALAXY.

I BROUGHT THAT FROM MY HOME PLANET. IT'S CALLED "ICE CREAM."

PEOPLE NEED THIS IN THEIR LIVES.
FOR SMALL PURCHASES, DIMES WORKED GREAT.

FOR LARGER ONES... NOT SO GREAT.

ICE CREAM 5 DIMES

GALACTIC CRUISER 70,000 DIMES

THERE'S GOT TO BE A MORE CONVENIENT WAY TO MAKE LARGE PURCHASES.

IF ONLY THERE WAS SOME OBJECT WE COULD USE TO REPRESENT DIFFERENT QUANTITIES OF DIMES... BUT WHAT?

I KNOW!

HOW ABOUT FISH?

HOW ABOUT... NOT FISH?

HOW ABOUT...

...THIS FABRIC!

IT'S LIGHT, CHEAP, AND DURABLE.

I'M JUST NOT SURE HOW WE COULD MAKE IT UNIQUE, LIKE THE CARVED DIMES.

I'VE GOT IT! I'LL CARVE LARGER ROCKS, COAT THEM WITH INK, AND STAMP THEIR DESIGNS ONTO YOUR FABRIC!

RALLO, YOU'RE A GENIUS.
I will name them after myself. One "rallo dime" will be worth ten regular dimes. I just have to make sure to carve all the letters backwards so it will print correctly.

Fascinating.

Splat!

Oops.

Dollar?

Um...yeah. I thought we'd call them uh, "dollars."

I love it! Let's get these dollars into circulation!

The new dollars were so popular that Rallo was soon printing them in a variety of denominations:

1 dollar
2 dollars
5 dollars
10 dollars
20 dollars
50 dollars
10 dollars
20 dollars
50 dollars

Now big purchases could be made as easily as small ones.

One ice cream cone, please...

One galactic cruiser, please...

Dollars, a type of bank note, and dimes, a form of coin, were known collectively as "money."
IN A FEW YEARS' TIME...

THE PLANET'S ECONOMY EXPANDED EVEN FURTHER.

THE CITIZENS OF NOVUS WERE BETTER ABLE TO EXPAND THEIR BUSINESSES.

FLORA AND GLIX, FOR EXAMPLE, USED THEIR HARD-EARNED DOLLARS TO GROW THEIR SMALL ICE CREAM STAND INTO A THRIVING BUSINESS--COMPLETE WITH DELIVERY SERVICE!

CAN YOU BUILD THREE NEW GARAGES, TWO HORSE STABLES, AND A HALF-DOZEN--

MY ICE CREAM!

RIGHT ON TIME!

YEP!

PRESIDENT TILLI LOVED HER WEEKLY ICE CREAM DELIVERY.

...BUT WHEN SHE WENT TO RETRIEVE SOME MONEY FOR FLORA...

I HAVE NONE ON HAND!
President Till was not broke. Of course—her money was stored at the river bank. So she simply wrote a letter to Rallo...

*Dear Rallo,*

*Please, at my request, give three of my dollars to Flora.*

*Thanks,*

*Pres. Till*  

...because President Till authorized this exchange with her official signature, I will give you three of her dollars.

Yay!

This was a new development in Rallo's day-to-day banking responsibilities, but one he found very interesting...

If he were to establish a way in which these official letters—or checks—could be used on a regular basis, it would make buying things more convenient for everyone.

The benefits of this new checking system were immediately recognized. Before long, many of the citizens of Novus were participating in this new payment system, making transactions even easier...

Businesses continued to grow.

*Some businesses faced new challenges.*

My crew and I can only work so fast with what we have! If only I were able to borrow some money temporarily and then pay it back once my profits rolled in... hmm...

Venny the Carpenter took his idea to the bank...
Let me get this straight, you want me to give you money in exchange for... nothing?

Only temporarily! You know I always deposit my earnings at the end of every month. I only need a loan until then.

Even then, what's in it for me?

He could pay you back all the dollars, plus one fish!

No fish.

Wait a minute! That's not such a crazy idea...

Venny promised to pay the bank back a little more money than he borrowed, which would then make it worth Rallo's while.

Then, when that equipment enables me to take on more projects, and make more profits, I will pay you back one extra dollar for every ten dollars you lend me.

Now I'm interested...

Let's say you lend me some of the dollars you have stored here at the bank—and with those dollars, I buy more equipment...

What Venny needed was "capital." Rallo's bank loaned him the money—or "principal"—which he agreed to pay back over time, along with some additional money, called "interest."

Now we're talking!
SOON, LOANS BECAME FAIRLY COMMON ON NOVUS, AND CONSTRUCTION WAS BOOMING.

NEW BUSINESSES WERE POPPING UP EVERYWHERE...

AND OLD BUSINESSES WERE GETTING LARGER.

WITH SUMMER VACATION JUST AROUND THE CORNER, FLORA AND GLIX KNEW THEY WOULD BE NEEDING LOTS OF ICE CREAM FOR ALL THEIR CUSTOMERS.

THE ASPIRING ENTREPRENEURS TOOK OUT A LOAN FROM THE RIVER BANK, SO THAT THEY COULD IMPORT MORE ICE CREAM THAN EVER BEFORE.

HERE YOU GO! WE CAN'T HAVE SUMMER VACATION WITHOUT ICE CREAM.

THE NEXT DAY...

THERE'S ALREADY A HUGE LINE! WHERE'S THAT SHIPMENT?

HERE IT COMES NOW!
Our ice cream melted! We can't sell it now we are in default because we can't pay back our loan!

Oh no! Half of Novus is lining up outside to withdraw their dollars for summer vacation...

...But I've loaned too much out. I don't have enough dollars set aside in the reserve to pay for all these withdrawals at once!

I need to ask for a loan myself—from the bank across town!

Have you not heard? The river bank does not have enough dollars in reserve. It cannot cover our vacation cash needs.

Yikes!

Let's go get our dollars while we still can!
RALLO ARRIVED AT THE SECOND PLANETARY BANK

...AND THAT'S WHY I NEED AN EMERGENCY LOAN!

LOOKS LIKE WE HAVE A BIGGER PROBLEM...

GIVE US BACK OUR DOLLARS!

Yeah! And our dimes!

THIS IS KNOWN AS A "RUN" ON THE BANK—
WHEN A PANIC CAUSES EVERYONE TO TRY
AND TAKE OUT ALL THEIR MONEY AT ONCE.

THIS COULD BE THE END OF MY BANK—AND
I DIDN'T EVEN MAKE ANY LOANS THAT
DEFAULTED.

WE'D BETTER GO TRY TO CALM THEM DOWN.

OKAY... WE NEED TO STAY CALM!

I NEED MY DOLLARS!

HOW DO YOU EXPECT US TO PAY OUR BILLS?

SECOND PLANETARY BANK

I WANT ICE CREAM!

TOO MANY PEOPLE WANT TO WITHDRAW THEIR MONEY FROM OUR BANKS, BUT NOT ALL OF IT IS AVAILABLE.

A LOT OF IT IS LOANED OUT AT THE MOMENT, BEING USED AS CREDIT TO HELP BUILD NEW PROJECTS AND START UP NEW BUSINESSES.

THIS SOUNDS LIKE A PROBLEM.

THAT'S BECAUSE IT IS!
Look, we can’t take out all of our money at the same time. There won’t be enough to go around!

Why not? What happened to it?

It’s all around us! It’s in our businesses, our homes, and on our farms.

See, if we take all the cash from our banks, the whole system will collapse!

The banks have been there when our businesses needed credit.

People will lose everything they’ve worked so hard for!

Yes, but who’s going to be there when the banks need credit?

Wait! I think I have the answer...

No fish!!!

Who said anything about fish?

I was going to suggest that we create an institution that can provide credit to the banks, similar to how the banks provide credit to us!

Hey, now... I kind of like that!

A bank for the banks...
The residents decided to create and fund a central bank that could monitor the health of all the banks of Novus, ensure that the banks held enough reserves, and lend them money during bank runs or other emergencies.

I think this is just a wonderful idea!

I agree.

The central bank of Novus would have roles and responsibilities not all that different from the kind you folks have across the galaxy on planet Earth.

First, money replaced barter. Then banks were developed—initially as storehouses for money, then as operators of the checking system, and then as lenders.

A central bank was established to make sure the banks didn’t lend too much or too little.

Central Bank

The River Bank

National, regional, and local banks

Second planetary bank
TO BE CONTINUED...

""THE STORY OF THE FEDERAL RESERVE""
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