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EPISODE 311

Why Is the Live-Event Ticket Market So Screwed Up?

The public has almost no chance to buy good tickets to the best events. Ticket brokers, meanwhile, make huge profits on the secondary markets. Here's the story of how this market got so dysfunctional, how it can be fixed – and why it probably won't be.

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EPISODE TRANSCRIPT

Let me ask you a question. When you buy tickets to a big concert, or a professional sports event or, a hot Broadway play – on a scale of one to 10, how would you rate the ticket-buying experience? Think about everything from the price to the availability of tickets to the transparency of the whole transaction. OK, now say your number. Oof! That’s even worse than I thought you’d say. All right, now rate the experience of the last non-ticket purchase you made – clothing or groceries, maybe a piece of furniture. Now, how would you rate that experience? Yeah, that sounds about right. Most markets these days are pretty transparent and predictable and sensible. But the ticket market?

BUDISH: This is a market that’s been screwed up for a long time.

That's **Eric Budish**, an economist who's written a paper on the ticket market. And when he says it's "screwed up" – well, you already knew that, didn't you? You already knew that the hotter the event is, the more likely it'll somehow be sold out the minute tickets go on sale. You also know that scalpers somehow always get plenty of tickets, and they charge prices that could send a kid to college. You know all about those "service fees," too.

Eric SCHNEIDERMAN (on SI Wire): Our investigation found that the venues like, and ticket vendors, like Ticketmaster and Tickets.com can add on significant fees that as much as double the price of the ticket.

That's **Eric Schneiderman**, New York State's Attorney General, **talking** about his investigation into various consumer abuses in the ticketing industry. One big focus: the **software bots** that scalpers use to scoop up the best tickets before anybody else can get them. "The majority of tickets for the most popular concerts," the **report** read, "are not reserved for the general public." None of Schneiderman's findings were particularly surprising to anyone. Remember, this is the ticket market we're talking about.

BUDISH: This is a market that's been screwed up for a long time.

It's been so screwed up for so long that occasionally, someone tries to do something about it. Recently, that someone was **Bruce Springsteen**. It's hard to think of a performer with a more loyal fan base than Springsteen. So when he announced that he was bringing a new, intimate show to a Broadway theater – with a capacity of under 1,000 seats – he wanted to make sure his fans, and not scalpers, got the tickets. Some of which would be priced as low as \$75.

Springsteen also has more leverage than the typical performer. So he partnered with Ticketmaster to use a new program called Verified Fan. Ticketmaster calls **Verified Fan** "a really big robot to protect fans from the thousands of little scalper bots trying to scoop up tickets." One night, we went up to the Walter Kerr Theatre, on Broadway, where Springsteen was playing, to see if the people who wound up with tickets were indeed hardcore fans.

FAN 1: I got an early start. When he first started, like way back in the days when he was playing to no crowds. — So way back when.

FAN 2: I've seen him probably, I don't know, 10 or so times since — and I've turned my kids on to be Bruce fans.

FAN 3: Time to go in. Love Springsteen. Been seeing him for 42 years now!

FAN 4: You know, when we got married I knew it was God, Bruce, and then me. That was the order in line.

So — problem solved? Maybe. But remember:

BUDISH: This is a market that's been screwed up for a long time.

What you don't know about the screwy ticket market could fill an entire episode of *Freakonomics Radio*. And today it will. We'll hear from the ticket sellers:

David MARCUS: We are the recipient of the fans' ire. And, yeah, it's a tough spot to be in.

We'll hear from Broadway producers:

Hal LUFTIG: Steam is coming out of my ears, when you asked how I feel.

We'll hear from ticket scalpers:

Ken LOWSON: The bots are really a red herring, because we could only get the amount of seats that they would sell.

And we'll hear from you, the fans.

FAN 5: I can't accept it. It's not fair. It hurts me, really.

* * *

OK, let's start with the economists.

Alan KRUEGER: My name is Alan Krueger. I'm an economics professor at Princeton University.

Krueger has also held big jobs in government – in Treasury, the Department of Labor ...

KRUEGER: And then from 2011 to 2013, I served as chairman of President Obama's Council of Economic Advisers.

So what's Krueger have to do with the ticket market?

KRUEGER: Well, at the moment I have many endeavors related to rock and roll.

Research endeavors, we should say.

KRUEGER: And I'm in the process of writing a book on economics in music.

And then there's Eric Budish, whom we met earlier.

BUDISH: Sure. I'm a professor of economics at the University of Chicago Booth School of Business, and I do research on market design.

DUBNER: Excellent, market design. So let's start with that. What's your view on the markets that do work well, and what are the characteristics of a market that needs a bit more tending to than others?

BUDISH: That's a hard question. I don't know if I have a quick and articulate answer to that. Markets and societies need rules. So I think of market-design research as trying to get the rules of the game right, so that then competition can work its magic.

DUBNER: You've argued, as an academic, that at least one segment of the financial markets, at least one – high-frequency trading – is badly in need of a market redesign, yes? Could you explain?

*BUDISH: Yeah, so I remember at the time being genuinely puzzled how it could be worth so much money to be three-thousandths of a second faster than the competition. And where my research ultimately led was this observation that current financial exchanges have a design glitch. One way to think about it is when stock markets transitioned from being run by humans screaming in pits to being run electronically, we forgot to tell the computer to put time into a unit like a second or even a millisecond. And because of this failure to put time into units, the design encouraged **competition** on speed. It became economically meaningful to be even a billionth of a second faster than the competition. So stock exchanges sell what's called "co-location," the right to put your computers next to their computers. They sell that for a **lot of money**; they make more money from that than they do from trading fees, from trading shares of stock.*

DUBNER: Gotcha.

BUDISH: And the market-design reform I have proposed in my research is to put time into units, and then you can run what are called frequent-batch auctions – auctions conducted extremely quickly by human standards, but at a time interval that's slow enough for a computer – to transform the nature of competition from competition on speed to competition on price.

DUBNER: And has that solution been put into play, even on an experimental basis?

BUDISH: So, no. There are practical reasons why not, and then there's Chicago lunch-table reasons why not. The practical reasons why not are market-design reforms take time, and this is a particularly high-stakes market. There's also the Chicago lunch-table reason, which is that there are a lot of incumbents who make a lot of money from the status quo.

At first glance, you might think high-frequency trading has nothing in common with the live-event ticket market. But, as we'll learn today, there are at least a couple important overlaps – especially the speed-based competition and the power of the status quo. OK, let's start to unpack this. First of all, let's think about the nature of the ticket market. Here, again, are Eric Budish and Alan Krueger.

KRUEGER: Well, I think it's different than most markets. It's an experienced good. The emotional connection is the product. That's what separates it from buying canned peas.

BUDISH: Event tickets were underpriced from the 19th century; event tickets remain mis-priced to this day.

DUBNER: I love that you go right to tickets being underpriced, because I bet a lot of people hearing this think, "Oh man, no, no – events, musical events, concerts, sports events, they're way overpriced!" But you the economist go straight to underpriced. Can you explain that?

BUDISH: Sure. You caught me being an economist, thank you for that. So artists often want to sell their tickets at a – to an economist – an artificially low price. And what I mean by that is a price at which demand dramatically exceeds supply.

KRUEGER: For example, Bruce Springsteen cares deeply about his fans, and he wants them to care deeply about him, and he doesn't want to develop the reputation as gouging his fans. That's less the case when you go to the grocery store.

BUDISH: So what does this lead to? This leads to high-school kids waiting in line for long amounts of time to try to get these underpriced tickets. It leads to ticket

brokers waiting in line or finding other more nefarious ways to get underpriced tickets to then resell them at a more market-clearing price.

KRUEGER: I've heard artist managers say – and multiple artist managers say – they would like to have their clients charge a higher price. But the artists are reluctant. They're sensitive to what's written about them on social media.

BUDISH: So, economists are puzzled by the fact that ticket prices are often too low. If a ticket price is too low, that means the artist, or the venue – someone is leaving a lot of money on the table. And then this fervent resale market, where all of the profits from the underpriced tickets, instead of going to fans go to ticket brokers, or go to StubHub, or go to other secondary-market venues.

DUBNER: And we should say that ticket brokers, StubHub, secondary-market venues – all of them are basically, is that what you would call, as an economist, rent-seeking?

BUDISH: Yeah, so a lot of that activity is what I would call rent-seeking. And the basic economic point is that if an artist sells a ticket for 50 bucks, but the price at which that ticket clears the market is more like 500 bucks, there's \$450 of profit that's going somewhere. And a lot of that activity isn't socially useful, so it's profit-seeking without social value.

Global primary-market ticket sales are estimated at around \$30 billion a year. Secondary-market sales – on markets like StubHub – are estimated at another \$10 billion. So that's a lot of **rent-seeking**! We should point out, however, that a resale market like StubHub serves another purpose.

BALIGA: StubHub acts as an insurance policy.

That's **Sandeep Baliga**, an economist at Northwestern.

BALIGA If you're sick, you know, or if you can't go to a game, and so on, and so forth. That aspect of StubHub actually helps the originator of the ticket; because now the

originator of the ticket can say, "Look, before I was pricing it lower because you had no resale opportunities, but now you can resell the ticket on the on StubHub. And so because of that insurance I'm going to actually charge you more, because I know that you have a safety net should you need one."

DUBNER: Talk about scooping up tickets in the primary market with the use of either just good strategy or bots or any other technological workaround.

BUDISH: That's competition on — to an economist — a strange dimension: competition on speed rather than price; that's the connection to my stuff on high-frequency trading. It's competition, but it's not a productive form of competition.

DUBNER: Modern ticket-selling strikes me as so old-fashioned — and suboptimal — in that, all the tickets are released at once at a price with only a kind of haphazard guess as to what the actual demand is, or what the price elasticity may be. It reminds me of the bread drops in the old Soviet Union, where you'd hear that "on Thursday morning, this market will have bread." And then you have long lines and an immediate sellout and then the bread gets resold on the black market. So with the tickets — they're not using price theory at all the way economists would like to use price theory, right?

BUDISH: Well, I think you're absolutely right. Tickets are sold at a price at a moment in time. It is useful for venues to be able to plan in advance, so one reason why tickets are sold all at once is — well, if a concert is sold out, an artist might add another date.

*DUBNER: There's a quote in your paper that I was very intrigued by. It's from a former chairman of Ticketmaster, **Terry Barnes**, quoted in The Wall Street Journal in 2006 saying, "We're in an industry that prices its product worse than anybody else." So that's kind of discouraging, since Ticketmaster is the behemoth of ticket selling. You would think the one thing they would know is how to price tickets.*

*BUDISH: So Ticketmaster is the **largest** primary-market distributor of tickets in the world. And when they say they price their products worse than anybody else, they're*

*working on behalf of clients – whether it's **Beyoncé** or the New York Knicks. And the industry historically has been really bad at it.*

MARCUS: Yeah, so the ticketing value chain is opaque to most people.

That's **David Marcus**.

MARCUS: I am the head of music at Ticketmaster North America.

And because the ticketing chain is so opaque ...

MARCUS: I'm going to walk backwards through the chain so you understand how everybody is connected. Ticketmaster contracts with concert venues, sports venues, theaters, to be a vendor and they are our client.

DUBNER: Can you just talk about the different players from the artist, promoter, venue operator, etc., and how their incentives may differ from one another and how those incentives ultimately affect the price?

*KRUEGER: I don't think there is a standard model, but a typical type of model would be an artist who has a manager. Manager might take **15 percent** of the artist's gross – take from a concert. And the manager will negotiate with the promoter.*

MARCUS: The promoter has taken risk, has basically gone to an artist and said, "I'm willing to guarantee you a certain amount of money for the right to present your performance in this given venue."

KRUEGER: The contracts are, to some extent, like a book contract, where the artist will get an advance. The promoter goes and negotiates with the venue to hold the concert at the venue.

MARCUS: And the promoter does a little bit of math, figures out how many seats they have available, what the production costs are, what the guarantee they might

have offered the artist is, and arrives at pricing for the show, arrives at a total gross they need to achieve for the show.

KRUEGER: The promoter will hire a company, typically, to distribute the tickets.

MARCUS: And the venue is responsible for effectively telling us for every single event: what are the ticket prices that we need to charge, and what are the associated fees that go with that.

KRUEGER: Ticketmaster is the major player in that market.

MARCUS: And then we take their direction and make those tickets available to the fans through our website, [ticketmaster.com](https://www.ticketmaster.com), and our affiliated partners.

The revenue breakdown among the different parties will vary depending on a given deal. But, typically: between 30 and 50 percent of the ticket price goes to cover costs, with roughly 85 percent of the remainder going to the performers, and 15 percent to the promoter.

And then there are those much-unloved “service fees” that vendors like Ticketmaster add. In New York, they average 21 percent of the ticket price but, as we heard earlier, they can reach **100 percent** of face value.

BUDISH: Something that’s not widely understood is that these service fees often — part of them goes back to the venue.

MARCUS: In a percentage that varies widely, frankly, depending on the venue and the relationship they have to Ticketmaster.

*BUDISH: So Ticketmaster takes all the P.R. hit for these egregious service fees. But actually a lot of that money **spreads** its way around the rest of the food chain.*

MARCUS: It’s actually historically kind of part of Ticketmaster’s business model to take on the burden of that negative sentiment.

In 2009, then-Ticketmaster CEO **Irving Azoff** appeared before a **Senate Judiciary subcommittee** which was concerned that Ticketmaster's upcoming merger with Live Nation Entertainment would **hurt consumers**.

*Irving AZOFF: You know, Ticketmaster was set up as a system where they took the heat for everybody. Ticketmaster gets a minority percentage of that service charge. In that **service charge** are the credit-card fees, the rebates to the buildings, rebates sometimes to artists, sometimes rebates to promoters.*

*MARCUS: We would say it in the hallways: The reason that we're successful as we are is because we take those **bullets** on behalf of the venue, the artists, the promoter.*

Of course, if you worked for Ticketmaster like David Marcus does, you'd probably say that, too. But all the evidence we've been hearing today — from economists who've researched the ticket industry and governments who've investigated it — it seems to back up the argument that Ticketmaster does the bidding of other parties. The evidence also points to a fairly bizarre ecosystem where certain parties want to keep prices low, for appearances' sake, but also want to make as much money as they can. And they've built in a series of opaque transactions to make that happen.

KRUEGER: I said to a manager recently, "Is the concern about selling out?" And he said, "There are two concerns about selling out. One is that they don't sell out the house," which is what I meant. "But the other is that they're being viewed as having sold out to the capitalists, and that they're gouging their fans."

MARCUS: Artists value the ability to say, "We're sold out. And we sold out in a minute, or two minutes." And that is historically a banner to wave that reflects your stardom, But from an economic perspective, that's a disaster! If you sold out in a minute, you underpriced dramatically, right?!

*BUDISH: A lot of artists have their cake and eat it too. They'll set prices at what looks like an artificially low level, but then in excess of **20 percent** of tickets will never get sold to fans and get **kept** by the producers, the promoters, the venue,*

house seats of some sort. And then those seats have a way of finding their way onto the secondary market.

LOWSON: Yeah, there's two different greed lines.

That is **Ken Lowson**.

LOWSON: OK, so I invented ticket bots about, oh, 18 or 19 years ago.

That might be a bit of an overreach — others were working on ticket bots too. But still: We've been hearing about the supply side of ticket-selling — how the allocation happens, how prices are set, and so on. Ken Lowson, as a ticket broker — or, if you will, a scalper — sat at the intersection of supply and demand. OK, and what about those “greed lines”?

LOWSON: You want the fan to get mad at a misdirected person than at the artists, because they lose their fans that way. Like they can price their ticket at \$150 before their fans puke. But you know a scalper can sell the same fan a seat for \$2,000, and they're not mad at the artists, they're mad at the scalper; but they still pay it.

Coming up on *Freakonomics Radio*: how people like Lowson get hold of the tickets that you can't.

LOWSON: I got really lucky with a super genius out of Bulgaria.

We talk about possible fixes to the screwed-up ticket market.

MARCUS: It's blown away our expectations.

But, why even the best fixes might not be good enough.

LOWSON: Everybody's making money on scalping. Everybody from top to bottom.

* * *

As we've been hearing, there are a number of ways in which the live-event ticket market is not a typical market. You're buying an experience, versus a product or a service. It happens at a specific time and place. Also: The people who create and produce live events — Broadway shows, for instance — they have a relationship to their product that runs particularly deep.

LUFTIG: When I was a kid, the reason I got hooked on theater was my parents took me a lot, because theater was affordable.

That's the Broadway producer **Hal Luftig**. Among his many shows is *Kinky Boots*.

LUFTIG: Tickets were three dollars and fifty cents. It didn't break the bank.

Chaim TOPOL: If I were a rich man, da-da-dee-da-da-dum, all day long I'd biddy-biddy-bum, if I were a wealthy man!

LUFTIG: We were all the way up in the balcony. I saw Fiddler on the Roof from the second to last row —

DUBNER: And it still worked?

LUFTIG: And it still worked!

Broadway prices today are quite a bit higher — especially for the hottest shows, like *Hamilton*.

Jeffrey SELLER: Good afternoon. This is Jeffrey Seller speaking. I am the producer of Hamilton: An American Musical.

DUBNER: Now, when most people think about the role of a theatrical producer, inasmuch as most people ever do think about that role, which may not be so much, no offense — what probably comes to mind is Max Bialystok, The Producers.

***Nathan LANE:** Step one, we find the worst play ever written. Step two, we hire the worst director in town. Step three, I raise two million dollars!*

DUBNER: So can you talk about what you actually do as a producer and how that may or may not resemble what Max Bialystok did?

*LUFTIG: Well, first of all, I don't own **a cardboard belt**. So there's a difference right there. And I don't have Ulla working for me in the office.*

***Uma THURMAN:** When you got it, flaunt it! Step right up and strut your stuff...*

SELLER: I'm a lot skinnier than Max Bialystok, and I would never take advantage of an old lady to get a few dollars out of her pocketbook to put into my show.

***LANE:** Hello, gorgeous! Did you bring the checkie? Bialy can't produce plays without checkie!*

LUFTIG: I kind of say what a producer does is serves as that owner or CEO that kind of oversees everything. I am responsible for finding the funding for the production. A producer also has his hand in the actual management of it, day-to-day.

SELLER: Right. Well, one of the principal jobs that the producer has to fulfill is setting the prices, and the first thing we have to look at is how much money does it cost to run the show every week ...

LUFTIG: Very early on in a production's life, money needs to be spent on, if for nothing else, just hiring the author, the director, they all get, a little bit of fee to start. And there are things like getting the rights and getting the creative team and you would be amazed expenses crawl.

*SELLER: Well, a Broadway musical these days can cost anywhere from \$10 million to \$20 million. And it is certainly common for me to invest up to 5 percent of the budget personally. And just to put it in perspective of what that financial risk is, **80 percent** of shows do not pay back their original capitalization.*

SELLER: Of the 20 that return the capital, probably half of them make a very modest profit, like maybe a 4 or 5 percent return on capital. And then you have your blockbusters that come around every now and then that become enormous windfalls in which investors can multiply their original investment sometimes by 10 to 20 times.

LUFTIG: You have Lion King, you have Phantom of the Opera, you have Chicago. And you know, Kinky Boots ...

Kinky Boots "Just Be": Just be with dignity; celebrate your life triumphantly!

DUBNER: Bruce Springsteen. Right?

LUFTIG: Oh wait, has he recouped?

DUBNER: Did you name Hamilton? Did you include Hamilton?

LUFTIG: Oh no, I haven't named — I haven't finished. Yeah, Hamilton.

DUBNER: That's a fairly popular one I understand.

LUFTIG: You think? I don't know, it's iffy.

SELLER: Hamilton is doing great and its investors call me and thank me on a regular basis.

DUBNER: Talk about the breakdown of that profit distribution.

LUFTIG: The first thing that happens with the weekly income is you have to pay your bills. You pay the theater, you pay the theater rent, you pay the theater percentage, all the crew, the cast, the orchestra, your advertising bills. All of that gets paid.

SELLER: After the show pays all of their expenses, then the profits go to the investors and the producers, and they share the profits.

DUBNER: The way you've described the distribution — basically the producer more than anyone else by far — if it's a homerun, you do really well. And if it's not then you — you really don't.

LUFTIG: You really don't. And here's the thing that people don't realize about producers. In other industries, people who are working on something get paid while they're working on it. Not producers. I can work on something for four or five years. I'm not drawing a salary, or I'm not getting any income. The only way that a producer really starts making money is when the show becomes a hit.

SELLER: Hamilton had the experience of having a show go on sale on a given day with a block of tickets and watching the entire block of tickets sold within minutes. At first we're happy – "Wow, we sold all our tickets in a matter of minutes, or an hour!" But then what we learn is that a lot of consumers are frustrated that they could not buy tickets. And then we learn that those very tickets are being sold for three, four, five, eight, 10 times their face value.

Jeffrey Seller wouldn't talk to us about actual *Hamilton* profits, but here's what we do know: so far this year, the Broadway version has taken in more than **\$140 million** in ticket revenues. A 2016 *New York Times* estimate put annual operating costs at about \$34 million. So that's a lot of profit to spread around – to producers and investors; to **Lin-Manuel Miranda**, who wrote the show and originated the lead role; to the rest of the creative team, and so on. That said, the \$140 million revenue figure is from the primary ticket market; not the secondary market run by brokers and scalpers.

*SELLER: Millions has been lost. There was a point where we knew that up to 70 percent of our tickets were being purchased through automated bots. I for one went down to Washington and appeared before a bipartisan **Senate panel** to explain why bots were so insidious and why bots are so unfair. That's not good for consumers, and it's also not good for stakeholders, like the artists who write the show, create the show, work on the show, and for the producers who take the risk, and the investors who take the risk. If there are going to be windfall profits, they need to go to the people who supported the show and the people who created the show.*

Hal Luftig has a similar view of bots, and scalpers.

LUFTIG: Steam is coming out of my ears now, when you asked how I feel – as if it was a cartoon. Steam is coming out of my ears, because I think there's nothing positive about the secondary market. They haven't done a thing to help create this show!

But the fact is that a lot of people are willing to pay a lot more than face-value to see a show like *Hamilton*. Now, to be fair, the show has raised its prices quite a bit. The average amount paid for a ticket to *Hamilton* on Broadway in 2017 was \$274 – nearly **double** the average amount paid in its first year, 2015. But they also distribute thousands of \$10 tickets each year to students and another 46 tickets every night, priced at just \$10, via a lottery.

SELLER: So what we use is a Robin Hood strategy of soaking the rich to help the poor.

OK, but: Since scalpers make so much money by selling tickets so far above their face value, why don't producers just raise their prices more, to capture the money they see as rightfully theirs?

LUFTIG: I want families to come, I want people to come again, I want tourists to be able to come and not break the bank.

SELLER: This notion of fairness is so important to us.

LUFTIG: And so I may not be maximizing at the moment my dollars, but hopefully I'm creating a culture of people who'll keep going to shows.

So that's another way in which the ticket market, at least for Broadway tickets, isn't a typical market: The people in charge – at least the ones we interviewed – don't really want to engage in what economists call "profit-maximizing." They want to make their shows accessible to a broad audience, and they want to not exploit that audience. But by doing so, they end up underpricing their tickets, which creates an opportunity for other people to profit-maximize.

LOWSON: Correct. And we called ourselves, you know, we specialized in “ticket pulling,” is what they call it.

That, again, is Ken Lawson.

LOWSON: And that’s something that goes back before the Internet.

MARCUS: You would go get in line, a physical line, at 10 a.m.

And David Marcus, from Ticketmaster. Back then, concert tickets were often sold in record stores — first-come, first-served.

MARCUS The clerk would open the door to the record store, and the line would filter in.

LOWSON: The guys would go pay off the record-store manager, and then they sit in the back, pull out all the good ones, and then let the first person in.

MARCUS: And scalpers would get somebody in line. They would hire homeless people to stand in line for them.

Eventually sales shifted to the phone, and Ticketmaster.

MARCUS: And the same paradigm was implied. At 10 a.m., when the record stores unlocked their doors, we’ll open the phone lines, and we’ll be able to process more orders faster.

LOWSON: We were really, really good at flirting with the Ticketmaster operators, and then making them hit the keys quicker for us. And we had a boiler room setup. And 40 people, something like that, buying tickets.

MARCUS: And then the Internet came around, and in the late '90s, we sold our first ticket via the Internet, and the same paradigm was put into play. At 10 a.m., when the doors opened to the record stores, and when the phones light up, we'll open the ability to buy tickets on the Internet. And this massive surface area of the ability to transact was created. And Ticketmaster became really unmatched, in terms of being able to sell huge volumes of tickets quickly.

LOWSON: Well, the bots came along, and we saw that volume jump. Now, you could buy hundreds of times more seats.

Lowson's company was called **Wiseguy Tickets**. During the Internet era, it became one of the most notorious, and successful, ticket-scalping operations. He makes it clear he had a lot of programming help.

*LOWSON: I got really lucky with a super **genius** out of Bulgaria. And we were just better at it than anybody else in the game. And we were shaving milliseconds.*

But what about anti-fraud software, like the CAPTCHA field that supposedly needs a human to fill it out?

LOWSON: They were only using 30,000 images static. So anybody who knows CAPTCHA knows you have to use millions, if not hundreds of millions of images, and you've got to rotate them if you want to stop automators. You don't just put in that same 30,000 images and leave them there for two years. It wasn't even a thing to beat.

By the mid-2000s, Wiseguy was getting the best tickets to the biggest concerts and sporting events and Broadway shows.

LOWSON: We'd go in there and be out in a minute and have all the seats. For example, the Rose Bowl sold a thousand tickets to the public, and I got like, I don't know — 870 or 900 or something.

Wiseguy was a middleman. Brokers would feed them credit-card numbers on behalf of clients and Wiseguy would use those cards to buy batches of tickets.

LOWSON: We had like, I don't know, 200 AMEX cards. So if there was an AMEX sale we could – we would really take them all.

DUBNER: OK, so let's back up a bit here – the real scalping is going on between who and whom?

LOWSON: Well, promoters and teams sell directly to brokers. You know, and then those brokers and list them on the marketplace. You know, for a team owner, it's their ticket. And for a promoter, it's their ticket, it's not the artist's ticket. I don't know another industry that intentionally advertises one price to intentionally hold it, and resell it secretly.

DUBNER: But the story that we keep hearing is that the parties who make out financially worst are artists themselves because they want to keep the price low, because they want to serve their fans, and they want to be sold out. Right?

LOWSON: Well, they want to sell their product for as much as they can. Like any other business.

DUBNER: Yeah, but what we're told is that artists are typically not getting any of that additional markup. Are you saying that's not the case, that they are getting some of that markup?

LOWSON: Well, maybe it's something like that. But their managers are hired to make them the most money. And in the end, you know, if you're taking a guaranteed amount that's higher than the revenue from the tickets. It's like a pre-scalp.

DUBNER: I just want to make sure I understand it. So it's not that the artists are, per se, getting a cut – let's say a ticket sells for \$100 on the primary, gets marked up to \$500 right? It's not like the artist is getting any of that additional \$400, it's that the

guarantee that their manager negotiates for them is based on a ticket sale price somewhere in between \$100 and \$500, is that what you're saying?

LOWSON: Well, they're negotiating with, you know, a promoter which is for a flat amount per show. There's 50 shows on the tour, "we want \$50 million."

A flat fee or fixed guarantee is one model of artist payment, but hardly the only one. There's also a fee based on a percentage of ticket sales and all kinds of potential hybrid models.

LOWSON: And if that adds up to less than the ticket the box office priced, then of course the promoter can only make it up in the scalping market. Everybody's making money on scalping. Everybody from top to bottom.

Everybody, including Ken Lawson and Wiseguy. But in 2010, it came to an end, when the FBI shut down his operation.

*LOWSON: One count of conspiracy to commit **wire fraud**, which was based on a Russian programmer asking for Amazon dollars.*

Lowson doesn't seem to have moral qualms about what he did.

LOWSON: You might hate me for the price, but I'm delivering exactly what I promised you.

That said, he recently started up a new firm that's trying to make primary ticket markets better for artists, teams, and fans. It's called **TixFan**. Lowson is hopeful he can change the ticket-buying paradigm — but he admits that most of his old allies seem to favor the existing paradigm.

LOWSON: I went to four primaries, and four rock stars, and three teams, and promoters, and managers, and offered, basically, to do anti-bot and anti-scalping for free if they wanted to. To do a proof of concept. And nobody wanted to do it.

BUDISH: Milton Friedman talked about the tyranny of the status quo.

That, again, is the University of Chicago economist Eric Budish.

BUDISH: And the Chicago lunch table sees a market that's screwed up and says, "Huh, who's making money from the fact that this market runs inefficiently? Let's try to understand the forces preserving the status quo."

DUBNER: So if you, Eric Budish, were given the ability and authority to redesign from scratch the optimal ticket-sales market, for things like concerts, sporting events, and so on, including primary and perhaps secondary sales, that is both profit-maximizing to the "right people" and fair to consumers, what's that market look like?

BUDISH: I think you have to let artists and sports teams and so forth ban resale or restrict resale if they want to. So, you have to make it possible for Bruce Springsteen to set a \$75 price for his tickets, and have that ticket be something that you literally cannot resell to another human. As an analogy, if I buy a plane ticket, I can't resell my plane ticket to you, Stephen. It's got my name on it, I got to show my driver's license when I get to the airport. I mean, we're we're used to resale bans in other contexts. So I think you have to you have to enable artists to ban resale.

DUBNER: Are you sure you're an economist, though?

BUDISH: I'm giving the artists the choice. I'm not mandating that Bruce Springsteen sell this form of contract, but I think it recognizes that there is this nonstandard element to entertainment events, where artists or sports teams want to set a below-market price. I think you have to allow them to also ban resale. You have to then, in concert with that, enable fans who buy a ticket that they genuinely no longer can use to, in some way, get their money back.

There's another idea, also appealing to economists, that would improve the ticket market.

BUDISH: Absolutely. What's beautiful about an auction is that auctions find the exact price at which demand meets supply. If you think that's the problem, which I think a lot of artists don't – it's a complicated industry – but if you think the problem is "how do we find exactly the right price that maximizes revenue and doesn't leave seats empty," auctions are the economic solution to that problem.

And Budish discovered that back in the early 2000s, Ticketmaster actually **used auctions** to sell some premium concert tickets.

MARCUS: We were selling a hundred tickets per auction.

David Marcus again, from Ticketmaster.

MARCUS: These are for typically really high-demand artists who are playing arenas.

Beyoncé KNOWLES: London! How y'all doin' tonight?

Artists including Beyoncé, **Miley Cyrus**, and the Police.

MARCUS: And they were developed, fundamentally, to solve this problem of trying to find a mechanism that would allow us to set market prices for premium tickets, because scalping was increasingly an issue and the artist community was aware of it. And we were all looking for solutions.

Eric Budish and another economist, **Aditya Bhawe**, wanted to know how well those auctions worked in helping demand meet supply. They collected sales data from Ticketmaster, the primary market; and from eBay, a secondary market. (Today, by the way, eBay owns StubHub.) So in the data, they could see a given ticket migrate from one market to the other.

BUDISH: You can think of the empirical exercise as like Tag the Whale. So, you see a ticket sold in the primary-market auction, and then trace that same ticket to its secondary-market resale value.

For each ticket that made the journey, they compared three prices: its auction price, its resale price, and the face-value price it would have sold at had there not been an auction.

*BUDISH: And the main finding of the paper is – it's a pretty simple paper – is that the auctions **worked**, in the sense of on average discovering the secondary-market resale value.*

In other words, the auctions discovered the right price at which the event's creators and producers could profit-maximize.

BUDISH: The difference between the auction price and the average secondary market resale value was 2 percent versus about a 100 percent difference between the face value and the resale value. So the auctions kind of worked, as an economist might expect the auction to work.

DUBNER: So Ticketmaster, in conjunction with some big-time touring artists decides, "Hey, we're giving away way too much money to people who aren't contributing anything here. So why don't we capture that money?" They do it. It works. More money goes to the people who "deserve it". That sounds like a success and a no-brainer to continue it into the future. Is that exactly what happened then?

BUDISH: No, the auctions are actually no longer in use, and haven't been for several years.

MARCUS: The problem we ran into was consumers didn't really like it very much. We couldn't get enough people to participate for four, or five or six days of bidding. And it wasn't scalable.

BUDISH: An auction can be intimidating. A high fixed price might be too high a price, but it's not intellectually complicated.

MARCUS: It wasn't a terrible experience. But it required that a fan be really committed, and it didn't have a lot of instant gratification. In fact, it had no instant gratification. And it just couldn't hold consumer attention.

So the auction model, which appeals to economists, didn't fly because it doesn't appeal to the real fans who actually buy tickets. Another model that might appeal to economists: using blockchain technology to register and track ownership of individual ticket sales. That's what a Dutch startup called **GUTS** is trying. Ticketmaster, as we noted at the top of this episode, recently tried another idea — the **Verified Fan** program. When there's really high demand for an event — Bruce Springsteen's Broadway run, for instance — this ticket-buying model doesn't prioritize speed, or even price, but degree of fandom.

MARCUS: We can really not make it about when, but about who. Who are you? Are you someone who is likely to use the ticket we sell you? Or are you someone who is likely to resell the ticket we sell you?

Ticketmaster **registers** fans and collects their email addresses and ticket-purchasing history.

MARCUS: And we run a series of sophisticated algorithms to try to forecast what that fan's behavior will be if they are successful buying a ticket.

The algorithms factor in a variety of true-fan behaviors. If, for instance, you want to buy **Taylor Swift** tickets, there are "**boost activities**" that will help: sharing social-media links, buying merchandise, watching music videos.

Or, if you really want to ingratiate yourself, you could take a selfie with a UPS truck, UPS being a major Taylor Swift sponsor. The public responses to this extended commercialism have been, not surprisingly, **mixed**. But David Marcus from Ticketmaster considers Verified Fan a huge success.

MARCUS: It's blown away our expectations. When we look across the 60-plus tours that we've applied Verified Fan to, we see that fewer than five percent of the tickets that we distribute via the Verified Fan program get listed on the secondary market, which suggests that we're doing a really good job predicting that post-transaction behavior.

A cynic might point out that Ticketmaster wants to steal market share from the secondary market because that market is dominated by a rival, StubHub. TicketMaster itself does resell tickets, through its TM+ Resale site, but those sales are dwarfed by StubHub's. A cynic might also point out that when the stakes are high enough for a given event, the Verified Fan concept can look impotent. As in the case of Bruce Springsteen on Broadway. The intimate show with the affordable ticket prices, meant for true fans, has somehow become a scalpers' holiday. Tickets originally sold for \$75 are routinely offered on StubHub for two, five, **ten thousand dollars**. Springsteen has added dates to the engagement, which prompted one cynical **headline**: "Springsteen to Extend Broadway Run, Giving You More Chances to Miss Out on Tickets." Here's some more audio from our visit to the Walter Kerr Theatre before one of Springsteen's shows:

ATTENDANT: However, you guys can join the online lottery, so I just suggest doing that, OK?

FAN 6: Ohhh, it's done.

ATTENDANT: Future time, OK? But I'm so sorry. But take one of these for now. Try next time, try next time.

So yes, we found plenty of die-hard Bruce fans outside the theater who got their tickets through primary channels. But we also found people like this woman, who'd come from Belgium to see Bruce.

FAN 5: I never stood a chance, and I — I can't accept it. I feel like this is a once-in-a-lifetime experience, and I will not be able to join. And it's very frustrating. It's not fair — it hurts me, really.

She tried the normal channels.

FAN 5: When the tickets were on sale I tried for days, and days, and days in a row to get in. At one point I managed to register only to get a message later that I was being put on hold. And actually today, I saw a ticket for sale for \$800, and I pushed the pay button, and then I saw that there was another \$200 service fee, and then I dropped it. Because I thought, I cannot rationalize this for myself; I mean, this is too much money.

We asked if she was going to try for another night, or enter the ticket lottery.

FAN 5: I don't know, I think I'm just gonna go for a drink or something.

Coming up next time on *Freakonomics Radio*: another story about markets where supply and demand have a hard time meeting.

Ruthanne LEISHMAN: You can't buy a kidney. You can't pay for somebody's college education to get a kidney.

But there is a way to help find a kidney for people who need one. It's such a clever solution that its inventor won a Nobel Prize. "Make Me a Match" – that's next time, on *Freakonomics Radio*.

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