AMERICAN PREDATORY LENDING AND THE GLOBAL FINANCIAL CRISIS

ORAL HISTORY PROJECT

Interview with

Frank E. Nothaft

Bass Connections

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PREFACE

The following Oral History is the result of a recorded interview with Frank E. Nothaft, conducted by Maria Paz Rios on March 19, 2021. This interview is part of the Bass Connections American Predatory Lending and the Global Financial Crisis Project.

Readers are asked to bear in mind that they are reading a transcript of spoken word, rather than written prose. The transcript has been reviewed and approved by the interviewee.

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Maria Paz Rios: I'm Maria Paz Rios, an undergraduate student and member of the Bass Connections, American Predatory Lending and the Global Financial Crisis team, and it is March 19, 2021. I'm currently in Durham for an oral history interview with Dr. Frank Nothaft, Chief Economist at CoreLogic, who is joining me via Zoom. Dr. Nothaft, thank you for joining me today.

Frank Nothaft: Thanks for having me today, Maria. Nice to be part of the project.

Maria Paz Rios: I'd like to start by establishing a bit about your background. I understand you received your bachelor's degree in Mathematics and Computer Science from the New York University in 1973, and then continued on to get a PhD in Economics from Columbia University. Is that right?

Frank Nothaft: I graduated from NYU [New York University] in 1976, '73 is when I started. From there, I went directly to Columbia University, and I got my PhD in economics from Columbia.

Maria Paz Rios: Did your academic work lead you to an interest in mortgage finance?

Frank Nothaft: I was very interested in the interplay of macroeconomic policy—how it affects labor markets, and it really brought me into demography. That's what my thesis was on. It was an interplay of demography [and] labor markets with macroeconomic implications. That's a lot of words to really get at what the essence of it was, which was baby booms, baby busts, how that affects labor supply, how that affects decisions that members of a big cohort like a baby boom make in terms of investing in their own human capital. Human capital investment is a fancy term that refers to going to school, getting higher education, learning on the job, acquiring those skills when you're in the workforce. It's really that interplay between demography and labor markets that I found really interesting.

Then [I] developed my interest in the comparisons with housing and mortgage markets and how they work. When I finished my studies at Columbia, my first job was with the Federal Reserve Board here in Washington, DC. I started as an economist in the mortgage and consumer finance section. So, I didn't really have much urban and housing background when I joined the Federal Reserve. But as I was there, I learned that there was actually a lot of parallels between how we think about housing markets and how we think about labor markets.

I'll give you an example. In labor markets, you often talk about the unemployment rate, and you talk about how workers and firms search and meet. How does a worker search for a job? How does an employer search for employees? The same constructs actually apply to the housing market. In the

housing market, we talk about vacancy [and] vacant housing units. That's a similar concept as unemployment in the labor market. In the housing market, we talk about how do families search for the home that they live in? And how does a homeowner or maybe a landlord search for a home buyer or search for a tenant to acquire their home? So, those concepts are similar even though they're different markets. That's what really drew me further into analysis of housing markets and mortgage markets.

I was at the Fed for almost three and a half years. In that section, I specialized and wrote the drafts for a document called the Green Book. That's prepared by the Fed staff for each FOMC meeting—that's the Federal Open Market Committee. They meet approximately every six weeks. There's about eight FOMC meetings per year. The FOMC is composed of the seven governors at the Federal Reserve Board and the Federal Reserve Bank presidents. So, the staff economists would prepare the materials for review by the Federal Open Market Committee, which is the ultimate group that sets/determines the course of monetary policy. For one cycle, I'd write on housing markets. The next cycle, I'd write on mortgage markets, and then I'd write on housing markets, then I'd write on mortgage markets the next cycle.

That's where I really developed an appreciation and understanding of how to analyze and interpret what's happening in mortgage and housing markets. When you’re in graduate school, you learn all the theory. You get all the tools. You get the skills that you put into your economist toolbox. When you're working in government or business, you're applying those tools. You're really looking and working with data. That was a great experience from being at the Federal Reserve. We had tons of data coming in, and what we needed to do was examine the data about the housing [and] mortgage market using the theoretical tools and skills that we had acquired in grad school to try to interpret what was happening in the marketplace.

Maria Paz Rios: What sort of data did you have coming in and from what sources?

Frank Nothaft: Some of it was from other government agencies. For example, the Census Bureau [US Census Bureau], the US Department of Housing and Urban Development (HUD). On the mortgage side, a lot of the data came from what we call nowadays the government-sponsored enterprises: Fannie Mae [Federal National Mortgage Association] and Freddie Mac [Federal Home Loan Mortgage Corporation]. A lot of it came from HUD because the Federal Housing Administration (FHA) is part of HUD. Some of the data would come from FHA. Some of it would come from the Department of Veterans Affairs (VA) because VA [loans are] a big guaranteed home lending program for veterans that's run through the Department of Veterans Affairs. So, the mortgage data would be coming in from different sources. Some would come from the Mortgage Bankers Association. Some of the information would come in from trade associations in the mortgage and in the housing industry.

As part of my prep in writing up the draft, I would reach out to chief economists at these different organizations, maybe at a government agency, maybe at a trade association, maybe at Fannie Mae and Freddie Mac. And I'd ask them, "I'm preparing this draft. It's going to go to the Federal Open Market Committee. What are the new trends?" Or, "How do you interpret this wrinkle that I see in the data? What does that mean? What's going on?" That's really helped me develop this network within the industry. In part because of that network, after three and a half years at the Fed, I got a call from the chief economist at Freddie Mac telling me that he had a vacancy, and there was an opening, and was I interested?

And I was interested in terms of what my next steps would be in my career. It seemed like a great opportunity. This is way back in [the] mid-1980s, 1986—secondary markets were really blossoming. They really had grown a great deal in the early 1980s. And so, as a young economist, it sounded really cool to go and join a company [and] an industry that was really developing, evolving, growing quickly, and be part of that whole experience. And so, I did leave and then joined Freddie Mac in 1986.

Maria Paz Rios: What were some of your initial responsibilities at Freddie Mac, and how did they evolve until 2001, when you became Chief Economist?

Frank Nothaft: I worked in the chief economist team. I reported directly to the Chief Economist. Some of it is analysis of the markets, conducting research so that we understand better what was happening specifically in the mortgage market, but also in housing markets—in the market for buying and selling homes and financing them, in the market for rental homes as well, understanding what determines rent growth, what determines vacancy rates in the rental market, how was that affected by broader conditions in the economy, how it's affected by demography, demographic trends, in terms of different cohorts entering.

Generally, cohorts enter the labor market, and then shortly thereafter, once they've got some financial assets and wherewithal, they enter the housing market. Typically, they start off as renters. Two young folks come out of school. They get a job. Once they've saved up a little money for the deposit on the apartment, then they move into the rental market, and they rent an apartment. Maybe they have roommates, and they share the rental home. But that's a typical transition. And then ultimately, as people get older, and couple up, settle down, then they may consider that transition into first-time homeownership. Today, the median age of a first-time buyer in the United States is about thirty-three years of age. Sometimes people transition into homeownership earlier in their late twenties, maybe even younger, but the median age for that transition today in the United States is thirty-three years of age.

We would do analysis and research understanding what that trajectory is and understanding how that ties in with mortgage flows and mortgage demand. Part of my responsibilities was assisting and working with the chief economist in developing forecast projections—for example, forecasts of mortgage

originations. In other words, what is the demand for mortgage credit? How many mortgages are needed? Or should there be? Or that we expect in the United States, in say, the coming year? And that would then feed into some of the internal business planning and financial planning at Freddie Mac.

Some of it was involved with regulatory and policy analysis as well—helping our government affairs and policy team respond to requests from Congress or from the White House. We would prepare the economic analysis based on looking at data that then would help support the government affairs and policy team responding to information requests or sharing information with Congress, with the White House, with other government agencies. On the regulatory front, we would work with the legal team. Again, we're not trained as lawyers, but we would work with the legal team to provide economic analysis that would go into a legal response to a regulatory request for comment. So, those were some of the responsibilities. I was Deputy Chief Economist for a number of years at Freddie Mac. And then, as you mentioned, in 2001 I was promoted, I had the opportunity to become Chief Economist at Freddie Mac. I was Chief Economist from 2001 until I left in January 2015 and came to CoreLogic as Chief Economist at CoreLogic.

Maria Paz Rios: You mentioned that when you joined Freddie Mac, capital markets were booming. Could you provide us more insight on the state of the mortgage market and the state of capital markets during your early years at Freddie Mac? So, late '80s, early '90s.

Frank Nothaft: The secondary mortgage market in particular was the one that was really expanding and really developing and growing. It's often said that back in the 1970s and prior, [the] secondary mortgage market was kind of boring. The big Wall Street firms that had a mortgage desk—that was known as a pretty boring job because relative to what came later, [there was] relatively little mortgage-backed security issuance. The preponderance of FHA and VA loans were getting securitized into Ginnie Mae [Government National Mortgage Association] mortgage-backed securities, but by far, the securitization of conventional loans back in the 1970s was relatively modest. And then as we got into the early 1980s, there was deregulation in the banking sector: deregulation on the setting of interest rates on savings accounts, deregulation on the types of assets that financial institutions such as commercial banks, savings banks, [or] Savings & Loans associations could invest in.

It was also a period of disintermediation. This is way back in the early 1980s because there were new alternative investments such as money market funds that individuals could invest their funds in. They didn't need to invest just in a savings account at a bank or a thrift institution. It was a period where inflation had really ramped up. Today, we live in a period of really very low inflation, but back in the early 1980s, the US experienced some really challenging times where we had double-digit inflation. It's almost hard to imagine, but inflation, I believe, peaked in 1980 or '81 [at] around 13% as measured by the Consumer Price Index. 13% inflation in one year was really very high. That meant that

interest rates, especially after the deregulation of interest rates, had to be very high in order to provide a financial incentive for regular people to keep money in their savings accounts and their banking accounts at thrift institutions. So, it was a very, very challenging environment for financial institutions. And part of the regulatory response or support was to provide an opportunity for financial institutions that had home mortgages on their books and in their portfolio to sell them off into the secondary market. That really provided a big boost to the securitization efforts at Freddie Mac and at Fannie Mae.

I don't know how much detail you want to get in into—that's a long time ago. The differences between Fannie Mae and Freddie Mac are very minimal nowadays. That wasn't always the case. They do have some differences in their history and their legacy. Fannie Mae was created through an act of Congress—I believe it was 1938. So, Fannie Mae itself was born in the Great Depression. In some sense, it's the latter part of the New Deal. The reason it was created by Congress was to provide the secondary market outlet for FHA-insured mortgages. FHA was, again, a New Deal construct created by Congress, I believe in 1934. And the goal was to provide federally-insured mortgages to really stimulate home construction [and] home purchase.

And when you think back to 1934, that's really the depths of the Great Depression. Unemployment had hit 25% in 1933 and the banking sector, in some sense, had frozen up.[1] It was very different from what we see today in how banks operate. There were bank holidays because of the runs on banks. It's almost unimaginable compared to the challenges we've had in the last year in the economy. It's almost unimaginable to compare it with the severity of the Great Depression. That's the reason it's called the Great Depression. The unemployment rate peaked at 25%, and it stayed above 10% through the rest of the decade. It didn't get down below 10% unemployment until 1940. And the reason they finally got below 10% in 1940 was because of World War II. It was because the US was beginning to gear up and providing armaments and production to support allies. The US was not in World War II in 1940, but we were supplying materials—

Maria Paz Rios: Lend-lease agreements with the UK, right?

Frank Nothaft: Right. Exactly. And so that helped finally to get more workers back to work, and the unemployment rate, finally, after many years, we have below 10%...

So, what the government realized when they established the FHA program—they thought that would really be a shot in the arm and really boost lending because banks were very skittish about making mortgage loans with so many people unemployed. And with so much uncertainty in the economy, they didn't want to take the risk of loss, but these were federally-insured FHA loans. And so,

[1] Unemployment averaged 24% in 1932 and 25% in 1933. See Table 1 (p. 2) at https://www.bls.gov/opub/mlr/1948/article/pdf/labor-force-employment-and-unemployment-1929-39-estimating-methods.pdf.

Congress and the economic policy folks in the Roosevelt administration thought that this would really help to get the housing market going—build homes and sell homes, and these are all federally insured mortgages. And it helped, but there were challenges in really ramping it up. And some of the challenges was that the banks and the savings banks, they'd originate the loan, and there was really no secondary market outlet.

They have to put the loans in their portfolio, hold them in their own portfolio, and banks could only hold assets if they had a sufficient number of liabilities to fund them. Liabilities are checking accounts and savings accounts. But if 25% of the workforce is unemployed, people don't have a lot of money to put into a savings account. So, banks and savings banks found that they were limited in how many new FHA loans they could make. They were making some, and it was helping, but it was limited because there wasn't enough savings balances/flows coming in to finance that. So, Congress and the policy chiefs in the Roosevelt administration realized they needed a secondary market outlet so that savings banks and thrift institutions could originate FHA loans and then replenish the cash by selling it into the secondary market.

That's why in 1938, I believe was the year, Congress created the Federal National Mortgage Association, better known today as Fannie Mae, to provide that secondary market outlet. Fannie Mae would buy the FHA loans from the savings institutions, from the banks. The banks would get cash that they could then use to make more FHA loans. And that really helped to stimulate some of the recovery by replenishing the funds that mortgage lenders needed in order to make more loans. Then Fannie Mae's authority was expanded as part of the G.I. [Servicemen's Readjustment Act of 1944] benefits in 1944. When the veterans' VA lending program was created, Fannie Mae was also given the authority to purchase VA loans and make a secondary market for VA. That's what Fannie Mae did for decades. They only bought FHA and VA loans. They held them in portfolio. They financed by issuing debt.

And then in 1968, again a period where there were some stresses in the financial system, there were occasional capital shortages, funding shortages for mortgage lending, because with the Vietnam War, the economy was overheating, and inflation was gradually rising. And with inflation rising and interest rates rising, there would occasionally be capital shortages, funding shortages, for making new mortgage loans. FHA and VA was fine because those loans could be sold off to Fannie Mae, but the rest of the market, which is called conventional mortgages, there really wasn't a very good secondary market outlet. There was a secondary market, but it entailed buying and selling loans between financial institutions. Each financial institution may have had a different set of underwriting. So, it was a very costly and slow process because the other financial institution that might be interested in buying loans essentially had to re-underwrite, needed to understand what the risks were. And so, it was a very costly process.

As part of these new steps taken by Congress, that's when Congress created Ginnie Mae separately and granted permission to Fannie Mae to begin to buy conventional loans. And then in 1970, Congress passed the Freddie Mac act [Emergency Home Finance Act of 1970] that created Freddie Mac to have a similar role, but for a different set of financial institutions. So, historically, Fannie Mae's, today we would call client base, was commercial banks and independent mortgage companies. They were the lenders that specialized in FHA and VA lending. Banks would also make conventional loans, but primarily that was the FHA and VA market. Separately, you had thrift institutions: savings banks, Savings & Loans associations. They could make FHA/VA loans too, but they tended to dominate in the conventional loan space. So, when Fannie Mae was given authority to buy conventional loans, their natural clientele were the commercial banks and mortgage companies, and the thrift industry was concerned that they didn't have their own organization for selling their conventional loans.

And Congress then in 1970, this is during the Nixon administration, created Freddie Mac. They passed the Freddie Mac charter act and placed Freddie Mac under the purview of the Federal Home Loan Bank Board, the federal regulatory agency that oversaw Savings & Loans associations, federally regulated thrift institutions. The Federal Home Loan Bank Board oversaw the FSLIC [Federal Savings & Loans Insurance Corporation], which was the federal deposit insurance corporation for Savings & Loans deposits, separately [from] the FDIC. The FDIC at that time just insured the deposits at commercial banks. And of course, over many years, those have all been merged together into the FDIC, so we no longer have an FSLIC— but FSLIC eventually was merged into FDIC. But that's some of the legacy and some of the reason why we've got these two companies.

And that's a question, sometimes it comes up: why do you have two of them? Why are there not a bunch of them? And it's part of the legacy of financial institutions in the United States and the regulatory structure separating the banks from Savings & Loans associations, the separation of commercial banks from mutual savings banks. Because of that regulatory distinction/separation, you had different entities develop to support each one of them: Fannie Mae more supporting commercial banks and mortgage companies and, ultimately, Freddie Mac to support mutual savings banks and Savings & Loans associations in providing that secondary market outlet. And of course, since 1970, through some congressional acts and whatnot, the responsibilities of Fannie Mae and Freddie Mac more or less have merged. The charters are not identical, but they're pretty similar. And today, they have the same client base, customer base—the same financial institutions that they purchase loans from, that they securitize loans with. But it was a gradual process over many years that led to that similarity that they now have today… I think understanding the history, to me, it's also really fascinating, but it's interesting—it gives you a better perspective as to why we are where we are today...

Maria Paz Rios: … Was there any change in the internal culture of Freddie Mac when it became investor-owned in 1989?

Frank Nothaft: Looking back on it, I think there was a gradual evolution. I can't say there was a lightbulb that suddenly turned on and everything was different. But I think there was a gradual evolution where there was the realization, recognition that there was a broad investor base now that had needs and expectations in terms of financial returns and of growth over time, which may have affected some of the broader decisions that senior management had made.

For example, it was in the 1990s that Freddie Mac management made the decision to expand and grow the portfolio. Up until the late '80s, the retained portfolio was relatively small. When I had joined Freddie Mac in 1986, something like 95% of the loans that were purchased went back out as mortgage-backed securities, otherwise known as Mortgage Participation Certificates at Freddie Mac. Participation certificates was a term that Freddie Mac used. They go out and were sold into the broader capital markets and other investors held them. The amount of mortgage assets, whether whole loans or Mortgage Participation Certificates held directly in Freddie Mac's portfolio was relatively small compared to the volume of securitization and sales of loans. Gradually that evolved over the 1990s, and gradually Freddie Mac built an investment team. It grew significantly over the next 15, 20 years as it expanded and managed this retained portfolio. So, there was a shift, but again, there was no light switch and things changed the next day. It was more of a gradual evolution over time.

Maria Paz Rios: How would you characterize the state of the mortgage market or the evolution of the mortgage market in terms of players, products, and practices in the '90s?

Frank Nothaft: Going all the way back to the '80s, one thing that was relatively newly introduced, or maybe re-introduced, into the US mortgage market was the wide availability across the United States of adjustable-rate mortgages. For a long time, the United States really was dominated by long-term fixed-rate mortgages. Some of the housing analysts sometimes even refer to that as the American mortgage because it's so unusual, so unique. We don't think of it as unique or unusual here in the US, but when you look at mortgage markets in other countries, it's very unusual to have a thirty-year mortgage with a fixed interest rate for the entire thirty-year period. I believe still today, the only other country that really has a sizeable, in terms of, percent of its mortgage market that is long-term fixed rate, I think, is Denmark. It's really unusual.

You'll often find different variants of what we would call adjustable-rate mortgages that clearly dominate in other countries. And in other countries, some of them will call them fixed-rate because they'll look like what we call in the United States a hybrid adjustable-rate mortgage, where it's got a fixed interest rate for a short period of time, and then it'll adjust or you'll need to renew it after that. For example, that's common in Canada. Canada is right next door. Their economy looks like our economy in many respects, but they do not

have the dominance of the thirty-year fixed rate mortgage like we have in the United States. They have long-term mortgages. Their version of a fixed-rate mortgage has it fixed for five years. And then, you need to renew it at the new market interest rate. So, it's almost more like a five-year adjustable-rate mortgage, and that's a fixed rate in Canada. So, it's a really kind of special and unique instrument relative to international comparisons that we have here in the United States.

From its introduction with the FHA program in 1934— that's really what helped to plant the seed for the gradual evolution and adoption of long-term fixed rate mortgages here in the United States. Back in 1934, FHA was only authorized to go out twenty years. Everyone thought at that time, that was radical, to have a maximum term of twenty years on a fixed-rate loan. It's only after that with subsequent legislation that FHA was authorized to go to twenty-five years and ultimately to a thirty-year term. And it's the thirty-year fixed-rate mortgage that really dominated the United States in the post-World War II period up until the early 1980s.

Again, what happened then is we had double-digit 13% inflation in 1981. Lenders were looking for a mortgage instrument that didn't tie them to just the fixed interest rate. When you have such volatility, you have the possibility of double-digit mortgage rates. Mortgage rates peaked at 18% for thirty-year fixed rate mortgages in, I believe, 1981. Today, mortgage rates are 3%. Can you imagine an 18% mortgage rate for thirty years? And so, lenders were affected significantly by the volatility and the very high level of mortgage rates and asked for some regulatory relief and permission to make adjustable-rate mortgages. In many cases prior to the deregulation of the banking sector, they were not allowed. If you were a federally-regulated, federally-insured institution, they weren't allowed to make adjustable-rate mortgages. And so, that all changed in the early '80s, 1981 I think. Regulations were issued that allowed banks and thrift institutions that were federally regulated to start to offer adjustable-rate mortgages.

There was a small adjustable-rate mortgage market prior to that. It was primarily in California. It was for only California-regulated thrift institutions. They generally called them the variable-rate mortgage. So, there were some in the 1970s, but again, not nationally available, not available across all institutions. That's what really started to change in the early '80s. That was a big product development. When we think about the products that are in the US by the time we get to the '80s and '90s and even today, that's really the re-introduction. I call it the reintroduction because if you go back prior to the Great Depression, the mortgages here in the United States looked a lot more like what you might see maybe in Canada. They'd have a little longer term, either be adjustable-rate or they'd have a balloon payment. So you'd have to, we'd call it today, refinance after five years to get the current market interest rate and then continue paying on your loan. That was the more typical instrument prior to the creation of FHA. So, what we have now is the re-introduction of adjustable-rate products in the early 1980s.

As we get into the latter part of the 1990s, what we see starting to emerge, in terms of a greater role in the mortgage market—and again, relatively small, but beginning to really emerge—is what I would call specialty lenders that are offering niche products targeted to borrowers who have specific needs. So, the secondary market is represented by Fannie Mae, Freddie Mac, Ginnie Mae—very good, might be very efficient, but you do need to fit the underwriting requirements of those institutions. Sure, there's some flexibility at the edges, but if you fall outside of those guidelines for underwriting, it's harder to get a loan. You can get a loan, but they might have a very high interest rate, loans may be sold off to private investors who are providing financing. You might fall outside of maybe even the regulatory purview.

So, beginning in the late 1990s, you begin to see these specialty niche lenders who are catering to people with very bad credit history. For many years, subprime lending existed in some segments of the consumer finance markets, such as auto lending. And we began to really see it develop and grow in the late '90s in the mortgage market. So, in my definition of subprime mortgages, those are mortgages that are made to borrowers who have a relatively high credit risk and are outside the underwriting guidelines at that time for Fannie Mae, Freddie Mac, and Ginnie Mae. Ginnie Mae is only securitizing FHA and VA loans. They don't do conventional. And so, these subprime loans, they're not FHA or VA, so they're in the conventional market. These are conventional loans, but they're not what's called in the industry “conforming”. They're not conforming because they don't conform to the underwriting guidelines of Fannie Mae and Freddie Mac. I don't know if you call it a new product, but it is a development in the marketplace. Oftentimes, the subprime loans that were being made were adjustable-rate as well. And again, it's a niche market— generally people with a lot of blemishes in their credit history, low credit score. That market is beginning to really grow although it's still a very small share of overall market activity.

You also have the beginning and growth, again very small, of a specialty market for low documented loans, or what ultimately became no doc loans [no documentation loans]. Low doc or limited doc loans mean that some of the traditional underwriting gets waived. For example, rather than verifying the income, verifying the assets, verifying the employment of the applicant for a loan, the lender maybe just takes the stated income. The applicant states: this is their income. They state that they're employed. They state that they have enough assets. And that type of lender would rely on other information to make their judgment to make the loan.

When they started out in the low doc business, they specialized in people with very high credit scores and relatively high income, but maybe it was very variable. Maybe it was doctors and lawyers and their income was very high, but it might bounce around a lot year to year, month to month. And maybe it was doctors and lawyers who didn't really want their income verified. They weren't necessarily hiding anything illegal. They just didn't want to have that information become available, what their income really was. So, they go to an Alt-A lender, which is what the name in the industry eventually came [to be]:

Alt-A for Alternative A. So, these are A credits, right? They're cream of the crop, A credits, very high credit score individuals.

Generally in the early stages of the Alt-A market, high income, high net worth individuals didn't want people to know what their income [was]. They didn't want their income verified. They didn't want their assets verified. They'll pay a little bit higher mortgage rate in order to go to an Alt-A lender. This is beginning to happen in the 1990s, especially as we get toward the end of the 1990s. So, very different niche lenders: subprime more for the very low credit score individuals, Alt-A lenders for the very high credit score individuals who had a lot of income, a lot of wealth, [and] didn't want people to be snooping around verifying it.

And so, you had these two niches develop. And those loans, typically, in the late 1990s, were not being securitized through Fannie Mae, Freddie Mac, and certainly not through Ginnie Mae, because these are all conventional products, and so it could not go through Ginnie Mae. So the outlets were Fannie Mae, Freddie Mac, or private-label securities, or just private investors who were wanting to invest in loans themselves. That's where we start seeing a gradual development and growth of private-label mortgage-backed securities. These are mortgage-backed securities underwritten by investment houses on Wall Street marketed through the capital markets. It could be public offerings with an SEC [US Securities and Exchange Commission] registration. It could be private placements. Either way, it could be privately placed with a big investor, but that's where we started to really see more of a growth and emergence of private-label securities.

Private-label mortgage-backed securities go back probably at least to the 1980s or the late 1970s, but at that time and throughout much of the 1980s, private-label securities were just a really small share of the overall mortgage-backed securities market. Really small— single digits in terms of market share. But that was an outlet for these specialty niche products: subprime—very low credit score, Alt-A—very, very high credit score. And those products could be placed into a private-label security and sold into the capital markets that way.

Maria Paz Rios: At what point do you think these niche products became more commonplace in the general marketplace, and would you attribute that to any specific set of conditions?

Frank Nothaft: Yes, that’s a great question. As we get into 2003 and 2004, 2005... As you know, 2001, also a very challenging time for the US economically, politically. We had a stock market correction, but a recession begins in 2001, and the unemployment's rising. And then of course, we have 9/11. Huge turmoil. A huge shock to the American psyche, to American policy, to American capital markets. One important but good step that the Federal Reserve took to really shore up confidence in capital markets in the banking sector was really driving a very accommodative, pro-growth, monetary policy— we were still coming out of a recession. And then of course we had the tragedy of 9/11.

As part of that monetary policy, they promoted and supported a decline in interest rates. They pushed the federal funds target down— I think it was set at 1% [by 2003], the Fed funds target, for an extended period of time, and provided ample liquidity to the banking sector to restore confidence in the banking sector to help the US recover from the recession, but the shock of 9/11 as well. And mortgage rates came down. I mentioned 18% mortgage rates in 1981. When my wife and I bought our first house as first-time buyers in 1986, we paid 10.5% for our thirty-year fixed rate mortgage. Mortgage rates in 2003, I think they came all the way down to about 5% and change. I'd have to have to check in the weekly Freddie Mac survey— so as Chief Economist at Freddie Mac, I oversaw the weekly Freddie Mac mortgage rate survey. But I think it came down to about 5% and change in terms of the mortgage rate in 2003, which was phenomenal. I said, "Man, I can't believe how low mortgage rates have come." And that's partly because of the very accommodative policy the Fed put into place. I don't think it got down to 4%, but around 5%. Mortgage rates were, relatively speaking, very low in '03, '04. And that, in turn, really stimulated a rebound in housing activity—in home building and home sales and mortgage lending—because it triggered a huge wave of refinance. These were the lowest mortgage rates in 2003. These were the lowest mortgage rates probably since the late 1950s in the United States.

And so, it triggered this massive refinance. I refinanced as well that year because I couldn't believe how low the rates had come. Still to this day, 2003 had the largest number of home mortgages originated in one calendar year ever, more than last year. Last year, 2020, was a big refi [refinance] boom too. [The] dollar amount was bigger in 2020, but in terms of number of loans, because there's inflation over time, 2003 was still the biggest year ever. So, it was a real growth period for mortgage lenders, mortgage bankers, mortgage brokers, mortgage companies, banks, etc.

Maria Paz Rios: When you saw things like a year with a historic amount of originations … what was your perception and Freddie Mac's perception regarding these ... historic numbers?

Frank Nothaft: My perception was this is great in the sense that this really shows the efficiency of secondary mortgage markets and capital markets in the United States, that they could manage and funnel all of that credit, finance all of that without really any bump in mortgage rates. Mortgage rates remained pretty stable relative to, say, 10-year US Treasury bond yields. Very stable. And in my perception, my belief was that that is because of a lot of the efficiencies that were really generated by the type of secondary market that we created here in the United States— and I say we, you know, Congress, in its infinite wisdom, had created. It really came to fruition to really help consumers obtain low interest rates.

Without a secondary market like what we had in 2003, we would have seen mortgage rates rise relative to Treasury bond yields. Homeowners [and] families wouldn't have been able to capture those low interest rates as readily. It would have taken longer to go from the application to settlement on those loans than

what actually occurred in 2003. So, to me it was, "Oh gosh, the efficiencies brought by the mortgage ecosystem built here in the United States. Wow, this is phenomenal. This is really great." My concerns about the housing market really come later, because there's this extended period of really low interest rates. The Fed kept the Fed funds target, I believe it was, at 1%, I think it was into 2004. I'd have to check, but very low interest rates for a prolonged period.

And there's a lot of controversy about this among economists: did the Fed put their foot on the accelerator too long? Did they keep the Fed funds target too long and supply too much liquidity into the banking system, into capital markets? Should they have started to allow interest rates to rise sooner? And you'll hear people talk to both issues, but that is a big question mark. Was the Fed too accommodative for too long? But we did have a very low-rate environment and it promoted home building. It promoted home sales. It started to promote home price increases. And, for a time, the growth in home prices seemed reasonable. After all, mortgage rates were the lowest that we had seen in almost fifty years.

So, looking at it as a housing economist: sure, there's a lot of growth. There's a lot of demand for homes. Sure, that puts upward pressure on home prices. Home prices are growing. They're growing faster than overall inflation in the economy. Yeah, sure, it makes sense. And questions were coming up. Are we getting into a housing price bubble? And we looked at it. Actually, I wrote a paper, I think in 2003, maybe it was 2004, where I said, "Given what we know and looking at the data now, there's no bubble. Some local markets are a little frothy, overheated, sure.” But a national home price bubble in 2004? No, I didn't see it.

As we got into 2005, I expected that we'd start to see moderation in home price growth. It didn't happen. I remember it was [the] first half of 2005, we got the initial home price data from the Freddie Mac [House] Price Index . I think it was for the first quarter. It was early in 2005. And my expectation was, "Okay, now we're going to see home price growth slowing." It didn't! It actually quickened. And I said, "Wow, we've had strong home price growth for a couple of years here—faster than inflation, faster than incomes." Mortgage rates had started now to rise as we got into 2005, as I recall. A little bit higher, not high. But I think they were getting back up to maybe close to 6%. And I said, "Gee, home price growth should be slowing." And it wasn't.

One thing I didn't appreciate, and maybe I was late to see this part of the market, was this growth of these two niches: the subprime guys down here with the low credit scores, and the Alt-A lending to what had been the high credit score people. So, there's this evolution, this shift between [the] late '90s and as we get into 2005, where these specialty lenders, they had boom times too. They had a great year in 2003, the largest volumes that they had seen. And they were looking to expand.

And some of the more traditional lenders, the traditional mortgage companies— Countrywide was the largest mortgage company in the US in the early 2000s. Countrywide looked around. They had been around for decades, very traditional, securitizing Ginnie Mae securities, selling to Fannie and Freddie. They saw the growth of these niche lenders: subprime and Alt-A. And they said, “Well, they're taking market share from us. We don't want to lose market share. We want to be in those markets as well.” And I don't mean to pick on Countrywide, there were plenty of lenders who had the same plan... it was the name of the game.

What seemed to be niche players, for many years, just had a really small share of the market. Suddenly their share of the market was expanding quickly and the large traditional lenders saw their market share eroding. At Freddie Mac and Fannie Mae, we saw our market share eroding too. Market share in terms of percent of the conventional— the way we would think about it is, we'd look at the conventional mortgage space that was within the Fannie Mae and Freddie Mac loan limits. That would be the market we could play in. And so, we would measure and monitor what's our market share of all of that. That was part of what I did at Freddie Mac throughout the '90s. We'd be trying to come up with good measurements of, what is the volume of mortgage lending that was conventional loans within the Freddie Mac and Fannie Mae loan limits? How much of that has Freddie Mac purchased? How much has Fannie Mae purchased? So we could measure our share of the market overall, and our share vis-à-vis Fannie Mae. That's one thing my team [did] in the ‘90s and continued to do in the 2000s as well.

By that measurement, at Freddie Mac we said, “Oh my gosh.” Fannie Mae said the same thing, “Oh my gosh.” Our market share has declined of all these, what looked like conventional mortgages, within our loan limits. They're not coming to us. They're now going into the private-label securities market. And if you look at private-label security issuance, it just ballooned in 2005, 2006. It ballooned so much that private-label securities—which generally, again, very small part of the mortgage-backed securities market; it varied a little bit, but maybe 10% of mortgage-backed securities were private-label per year prior to '03, '04— suddenly, there were more private-label mortgage-backed securities issued than Fannie Mae and Freddie Mac were issuing. Over half of the market was private-label securities. It was almost like overnight. It was incredible. And we were saying, “Oh my gosh.”

Maria Paz Rios: When this happened, what were some of the internal conversations? … What were some of the conversations that were being had within the senior leadership of Freddie Mac?

Frank Nothaft: I was in some of them, but I wasn't in all of them where they made —

Maria Paz Rios: Or with your team as well. What were you thinking regarding this?

Frank Nothaft: In my team, we were trying to understand: what's happened? What's changed? Why are all these mortgages going into private-label securities? What's the nature of these loans? Shouldn't Freddie Mac or Fannie Mae be better at execution? So, there must be something different with these loans. What's wrong with them? And that's where we started to look a little bit closer at subprime and Alt-A. The Freddie Mac business and its executive management team, some of their reaction was, "Well, if that's where the market is and the mortgage industry has more tools, and we're smarter now. We've got new models. We've got more data. We can examine credit scores so much better today than we could twenty years ago." It was a paradigm shift. We could go into these markets as well. We don't have to be constrained with our traditional underwriting guidelines.

We have a lot of clients who were telling us they wanted to sell us their low doc and no doc loans, otherwise they'll go and sell them to the private labels to put them in private label securities. "We need to modify our guidelines. Let's buy these low doc and no doc loans." That was some of the discussion [and] debates that I had heard about. Again, I wasn't sitting at the table when the executives made their decisions. But there are pros and cons to it because one thing that was so important was the credit risk culture that had been at Freddie Mac, and I imagine probably at Fannie Mae, but I know at Freddie Mac throughout that period up to about 2004.

And it was something that was recognized as providing that stability, not just to Freddie Mac, but to the mortgage finance ecosystem in the US. For some of us who were long-timers, and at the time I was a long-timer at Freddie Mac, it was hard to accept going away from the traditional guidelines that we had used for underwriting. But the comeback was, "Hey, we're smarter now. We get the whole credit report. We can model all this stuff. We couldn't do that twenty years ago. So, using these new tech tools, we can do just like what the private-label security guys are doing, just like what they're doing up on Wall Street. We're as good as them. We can use the same tools. And look, the lenders who are making these loans and the private-label mortgage-backed securities, they're doing fine. We've got the same tools. We can safely enter these markets."

One of the mantras that began to emerge in the company and came from some of the top executives at Freddie Mac was: "touch more loans". So, what we will do at Freddie Mac is we'll make these adjustments. We're not taking on more risks. We're making some adjustments here because we have refined our tools. And we are able to "touch more loans" in the marketplace. We can buy more product that years ago, we probably wouldn't have bought, but we can do so. We're smarter now. And if we take on additional risk, we also have more tools today to manage that risk and offset that risk. So, we're good. That's some of the decisions that were made at a high level.

And I have to admit that at first, I hadn't heard about them, but then after they occurred, I said, "Wow, we bought that portfolio from so-and-so. Gee! Really?

Well, that's a new way of thinking about our business." So, we bought a lot of Alt-A. We entered the subprime market in some sense too, where we increased our appetite for buying loans from borrowers with lower credit scores. Now with that, personally, I felt that the modeling team probably had thought through a lot of these issues, recognized some of the credit risk offsets. So, even though a low credit score individual has high risks, there are offsets in terms of maybe requiring more down payment, a lower payment-to-income ratio to offset the higher risk that comes from lending to a borrower with a lower credit score. But it turns out we apparently also, opened up? Loosened? I'm not quite sure what's the right term—the credit box and had accepted more credit risk than had been previously accepted.

Internally, it was kind of controversial. The tension really came to a head when the executive who was in charge of credit risk management and single-family business controls got fired. He was a long-term Freddie Mac guy. He and the CEO just kind of butted heads. I guess he butted heads with some of the other executives who wanted to pursue this policy of "touch more loans." He basically said, "No, this is an unacceptable amount of risk." And unfortunately, he was fired. He was a real good guy, but he was fired and decisions were made to "touch more loans." And Freddie Mac unfortunately then moved in—started to buy more loans with low credit scores, but especially bought a lot more of the low doc and no doc loans. And those, of course, are the loans that had the highest default rates once the crash occurred.

I mentioned one other thing about these specialty niche lenders. I mentioned [that] they were single-digit percent of mortgage lending back in the late '90s or early '2000s. Seemingly overnight, as we get into 2005 and 2006, these are no longer specialty lenders in a niche market. As I mentioned, some of the traditional lenders started to incorporate that into their own business. Low doc, no doc and subprime lending, previously a niche business, accounted for one-third of all home mortgages made in the United States in 2005 to 2006. From a tiny niche market to one-third across the country. And this is data at the time where we would get it with a lag. So, we would see the data the following year, and I'd look at it and go, "Oh my gosh, no wonder the private-label mortgage-backed securities market has ballooned."

It was over a relatively short period of time, this massive expansion of credit through fundamentally loosening credit standards. That's fundamentally what happened. And by loosening credit standards, sure, you're going to touch more families, you'll touch more borrowers, you'll make a lot more loans. For the mortgage lenders, most of them at that time work on commission. So, the more loans you make, the more commission you make too. So, there were, looking back on it, some bad incentives in the industry.

Maria Paz Rios: I would be interested in exploring some of these internal debates surrounding risk exposure. Could you provide some color as to within Freddie Mac, what the different lines of thought were, and if there were different camps, or how that

played out internally within Freddie Mac as you increased risk exposure to the subprime space?

Frank Nothaft: What was also happening at that time is executives made business decisions that they wanted to take steps, touch more loans, expand market share. Once those decisions were made, I have to admit it almost felt like they were putting all of their effort and resources into making that happen. So, I had concerns about how rapidly we saw house prices rising and how much risk that would potentially be exposing us to. I wasn't aware of at the time, in 2005 and 2006, how much of this was being fueled by easy credit, that is, subprime and Alt-A lending. So, it's always easier with hindsight to look back and say, "Gosh, that's crazy." But because I didn't realize how much of the house price growth was really driven by this easy credit, I didn't imagine how big of a house price correction it would be when the bubble burst. And the models that were used, not in my team, but in the team that did the credit risk management and evaluation of capital adequacy, they would look at different home price paths over time. I think the worst path that they had in the model was a path that had, nationally, home prices dropping 12 or 13% peak to trough, which at the time seemed like, "Oh yeah, that'd be a huge correction. That would be really unusual for something like that to happen. That hasn't happened since the 1930s. That is the worst case scenario. I'm sure. That seems good. And we have adequate capital at Freddie Mac to survive that path."

Well, the crash was worse. Prices fell in a national index by about 33% from peak to trough. So, if the price crash in the national index had stopped at 13%, it would have been bad, but Freddie Mac and Fannie Mae probably would have come through it okay. It fell much more than twice as far. It fell 33% in the national index. Pretty much every community was affected across the country, some more severely. You may have heard about the so-called "Sand States" that experienced even greater price decline. In Las Vegas, I think prices fell 70% to 75% from peak to trough, likewise in Florida, Arizona, Phoenix. Many markets had really severe price declines, not quite that far. Las Vegas was one of the premier cases. The Inland Empire in California, which had seen a lot of growth, a lot of expansion, a lot of easy credit, prices dropped in some of those markets 60 to 70%.

So, knowing what I know now, looking back, I can explain and understand what happened, but it was hard to imagine going through it. Even in 2006, when we were doing house price projections, and I would speak on it, I'd say, "No, I don't see house prices going up like they have the last couple of years. Our forecast for the next year: zero. Flat prices. Because prices are too high relative to income, blah, blah, blah." But prices ended up crashing. We didn't have any models -- I don't think anyone had really any models -- to forecast the extent and severity of the home price crash.

Now, one of the things that the execs were looking at was probably affected by some of the political pressures they were feeling. This is during the Bush administration, and there's a lot of pressure coming from Congress, some of

them from the White House too, about constraining the GSEs. “What do we need GSEs for in the first place? Why do we need to have them with the implicit backing from the federal government? Let's cut them loose. They want to be private? Sure. Let's make them really private institutions. Let's get rid of the congressional charter, get rid of that implicit guarantee, make them private. And if not, let's get rid of that. Let's just repeal it. Charters? Let's get rid of it.” So, there's all this political noise and pressure in the background. There are hearings up in Congress. And the executives who either are giving testimony on the Hill [Capitol Hill] or are meeting with policy people, at least in 2003 and 2004, they can say, "Look at what we did. We helped finance a record number of mortgages. No hiccups, no bottlenecks, no increases in mortgage rates. Families benefited from this huge refi [refinance] boom thanks to the secondary market that was created by Fannie Mae and Freddie Mac and Ginnie Mae. This is great."

As you get to 2005, 2006, suddenly private-label securities are the dominant industry in the market. They dominate mortgage-backed security issuance. Over half the market is private-label mortgage-backed securities. It's not Fannie Mae and Freddie Mac anymore. And so, some of the comeback to the execs is, “Well, wait a second. Why do we need you? The private-label mortgage-backed securities have taken over. They've made you guys irrelevant. We really don't need you anymore.” And that's part of what they were hearing. I think that probably affected some of their thinking about "touch more loans”. “We've got to recapture market share. We've got to be there. We got to show, not just to our customers, the banks and the mortgage companies, we've got to show some of the politicians that we are relevant. Fannie Mae and Freddie Mac are relevant in the mortgage market.”

And in early 2007, when some of the private-label securities started to explode with very high delinquent default rates, and one of the big investment houses that fell and blew up at that time was Bear Stearns in March of 2007. Bear Stearns, in a matter of what seemed to be days, maybe it was a week or two, went from a well-respected institution to basically bankrupt. And it was just amazing. And they were a big player in underwriting and marketing and selling private-label mortgage-backed securities. They had some very large positions in private-label mortgage-backed securities that just totally blew up because of the excessive default rates. And they were wiped out.

Part of the response, from Freddie Mac among the execs at the time was, "Okay, here's our chance to show that the prudent steps that we have taken will enable us to come in and provide additional liquidity and help stabilize the mortgage market in the aftermath of what's happened with Bear Stearns. We are prudently buying loans to borrowers with lower credit scores. We are prudently buying low doc and no doc loans. We're not buying the really crazy stuff that was packaged into the private-label mortgage-backed securities. We are buying and selling, but it's being done prudently because of the controls that we have in place." And so at that time, Freddie Mac, and I believe Fannie Mae too, stepped in a bit more and bought up more of these loans because there

wasn't a secondary market outlet as the private-label mortgage-backed securities market really froze up by the time we get to the middle part of 2007.

Maria Paz Rios: … In Freddie's case specifically, do you think Freddie's organizational model, which you also just discussed briefly, provided for potential conflicts or challenges in incentives?

Frank Nothaft: There's no question there's a lot of pressures and a lot of tough decisions that the executives have to make, but I think some of the challenges was that in the C-suite, especially maybe with the overall leader, the CEO, he had made decisions, he had made up his mind about what the right course of action was. And he was certainly under lots of pressures, but he didn't really tolerate a lot of pushback is my sense. He had pushback from the credit risk officer. They fired him. They fired him, and then almost to back up the firing—because I think he heard or realized that the person was very well-respected and well-liked—they kind of planted these messages internally that, “Oh, well, he really wasn't good. He wasn't really competent in that role. He wasn't playing the right role.” When we heard these things, we said, “What? Really? That's not true, unless something happened that we in the rank and file weren't aware of it.” It seemed really odd.

And so, the CEO didn't really tolerate what I would call pushback or what he felt as things that might be obstacles for him. I think it kind of affected the relationship I had with him, because there was apparently some—I had a monthly column. Today, we'd call it a blog. But I had a monthly piece that I would do at Freddie Mac about the outlook and market commentary that we would post on Freddie Mac's webpages. And there was stuff in there he just didn't like. He finally told the communications people, "Don't post it anymore." So, we would talk about it in my team. I went silent. I'd still be producing this monthly analysis, but we would distribute it internally. We'd send it up to the C-suite. I don't know if he ever looked at it anymore, but my material wasn't getting posted on the Freddie Mac webpages anymore. I think that started in '06, around that time.

Maria Paz Rios: And what were some of the things that he didn't like that caused this removal?

Frank Nothaft: It could have been a number of things. He never told me directly. I only heard it through others. He didn't like me commenting on monetary policy or fiscal policy, not that I would do much about that. I would just say the expectation, the consensus view is that the Fed will— do whatever—gradually increase the Fed funds target or gradually reduce the Fed funds target, or something like that. And so I'd have comments like that, and what I had heard through the grapevine, since he never told me directly himself, was that he felt it was inappropriate for me to be commenting and suggesting or telling Congress or the White House what to do over the Fed. I said, "Well, I'm not doing that. I'm just doing what any other chief economist would do." And when I would talk to my colleagues internally at Freddie Mac, we would talk about, “Well, gee, maybe he really wants to be the chief economist rather than you.”

The person I'm talking about is Dick Syron [Richard Syron]. He seemed like an okay, fine guy to me. But his background was— he had, early on, run the Federal Home Loan Bank of Boston, then he ran the Federal Reserve Bank of Boston. He was on the FOMC [Federal Open Market Committee] for many years. He made monetary policy decisions. He then moved to a company where he helped them through a turnaround situation. Then Freddie Mac went through some turmoil itself with [a] financial restatement [and] needed to find a CEO with some real stature. And the board of directors picked Dick Syron. And when it was announced, I said, "Wow, that is great. He's a trained economist. He's cut from the same cloth we are."

And I was familiar with some of his testimony and speeches and writings when he was at the Federal Reserve Bank of Boston as President. And I said, "Wow, this is great. It's great to have him on board. I can't believe Freddie Mac was able to get someone with his background, stature, and his experience with the Federal Reserve System to come here to Freddie Mac." But I think maybe he thought I was competing too much for the economic limelight. He never said that to me. But when I think back I'd say, "Why did it turn out that there was this, at times, what felt like some animosity toward me.” And ultimately, he silenced my monthly column on the external web pages. [He] never explained to me why, never told me why. We never talked about it. It might be a reflection of the fact that they made certain decisions. And certainly there were a lot of political pressures, a lot of business pressures. They made certain decisions, and he just didn't tolerate pushback.

Maria Paz Rios: … When and how did you become concerned about the housing market? What were some of the stress signs you were seeing? And at the time that you were concerned, was this concern shared more widely within Freddie Mac or within the general market?

Frank Nothaft: Some of the warning signs was the really rapid rate of home price growth. As I mentioned earlier, internally when we started to see this continuing in 2005, I said, "Well, gee, I just don't understand it. How could house prices continue to be rising at such a rapid rate relative to income of families, especially in an environment where mortgage rates have moved higher? I can understand acceleration of home price growth when mortgage rates are declining or low, but now we're in an environment where mortgage rates have been rising. That should moderate demand. That should moderate price growth, but price growth is accelerating." Back at that point was where I began to have some concerns, but there's a lot of chatter, “Oh, this time is different. It's a new paradigm. We're smarter now, blah, blah, blah. We have really good risk control. We can manage the risk, blah, blah, blah.” Again, I'm not in that part of the business, but that's what I hear.

And I said, "Well, okay.” Our projections, our forecast consistently was for moderation of home price growth, and they [the monthly forecasts] were consistently wrong. Home prices continue to quicken, keep going up. We kept forecasting no price growth—[but] prices would go up. I mentioned that in '06, I

remember we had forecast zero. Home prices kept rising. They finally peaked, I think in April or springtime of 2006. Toward the end of the year, as we were getting our home price data in, we started to see that prices had peaked, starting to maybe soften in some markets. [We were] not surprised to now see some home price declines, but just moderate. Very moderate. Because at that time, at least for me, I didn't fully appreciate how much the credit space has been opened up, how widely available credit had become that prompted people to buy homes without adequate financial backing.

You may have seen the movie *The Big Short* or read the book. It's very entertaining, but it also does capture, in some sense, the essence. For the movie, they may have made it a little more racy or exciting than it was, but it does capture the essence of the environment at that time. And that's something I think a lot of us did not fully comprehend and appreciate going through it. In hindsight, you can look back and say, "Oh my gosh, this was inevitable." But going through it, we thought, or I thought anyway, that we had ample credit controls in place. We had adequate capital. We had very good models, I thought, to monitor all of this, not fully appreciating how, on my part, how much junkie, high-risk product had actually come into Freddie Mac's portfolio, as well as not realizing how inflated home prices had become. They certainly were high. We expected some decline in prices. We did not expect the national price index to fall by 33%, peak to trough.

Maria Paz Rios: At that time, when you started becoming concerned, what was the market sentiment? Was that concern shared widely, or at what point did the overall market start getting concerned about the state of housing’s soundness?

Frank Nothaft: Capital markets?

Maria Paz Rios: Yes.

Frank Nothaft: I'd say it certainly really started to accelerate as we got into 2007. And when Bear Stearns collapsed in March of 2007[2], that was like a real awakening. I'm not sure if that's the initial start point or maybe the start point is a little bit before that. But when Bear Stearns collapsed and went bankrupt in March, that was a real eye-opener. And then, a lot of private-label mortgage-backed securities started to blow up. The borrowers could not make payments. They could no longer refinance and kick their mortgage problems down the road. Lending started to tighten up a bit, but then we saw just a huge spike in delinquencies. That culminated in September with the conservatorship of Freddie Mac and Fannie Mae in September of 2008. Was it March of 2008 with Bear Stearns?...

Maria Paz Rios: I think it is.

[2] The collapse of Bear Stearns was in March 2008—interviewee clarifies this later in the interview.

Frank Nothaft: Yeah. I'd have to look back. I don't remember exactly, but either March '07 or March '08. Maybe it was '08.

Maria Paz Rios: I think it was '08.

Frank Nothaft: Okay, so I got my years mixed up. But then in September we have the conservatorship of Freddie Mac and Fannie Mae, and then we've got Lehman Brothers about a week or two later going bankrupt. It was like a series of dominoes almost. It was unnerving, was rattling to see such long-established and largely very well-respected institutions suddenly go basically, go under or get taken over.

Maria Paz Rios: … When the crisis escalated fully [in] 2007, what was Freddie Mac's institutional response?

Frank Nothaft: I can tell you some of the external messaging in part came back to the charter, to the objectives Congress laid out for Freddie Mac in its charter. Freddie Mac's objectives are to maintain stability and liquidity in the mortgage market. And for many years that had been like the mantra. Those messages, I think, continued to reverberate in the external messaging. “Yes, there are problems with private-label mortgage-backed securities. They're different from us. There are high default rates in private-label mortgage-backed securities. We are here to maintain stability in the mortgage market. We are here to maintain liquidity in the mortgage market for those mortgages that meet our underwriting guidelines within the conventional space, within our loan limits. Those are the objectives given us. That's what we're going to continue to support. These problems in the private-label space, that's in the private label space. We are continuing to provide that liquidity and stability in our market to benefit American families.” That's kind of the external messaging.

And I mentioned, part of the goal was that, we've got to recapture our market share. We lost market share to the private-label players. Here's our opportunity to recapture market share but also demonstrate why we are relevant, responding to all those critics who say, “Well, you guys are no longer relevant.” No, we are relevant, and this is why we're relevant. We can maintain that stable flow of funds to the bank, to the mortgage system, to enable families to get mortgages. And we can remind that liquidity, meaning that we can make sure the funds are available at the lowest possible cost.

So, we provide the stability. We provide the liquidity to make mortgages more accessible as well—accessible because we work with thousands of lenders all across the country. Freddie Mac, and Fannie Mae, we buy loans in every community. So, we promote stability, we promote liquidity, we promote accessibility. And that's something you don't get in the private-label mortgage-backed securities market. The private label market? Look, they blew up. They're in the market in good times. When the going gets hard, they leave. We are here every single day. So, that was the external messaging.

Maria Paz Rios: Over the last decade, we have seen a number of narratives emerge to explain the financial crisis. How do you understand what caused it?

Frank Nothaft: I guess the bottom line was easy credit and an erosion of credit standards. And why did that happen? That's a good ancillary question. But fundamentally, that was the issue. If we didn't see this erosion of credit standards, if we had maintained underwriting discipline, I think we could have avoided the boom. And if we avoid the boom, we avoid the bust as well. That's maybe a really interesting distinction between what we've experienced in the last year compared to the experience of 2005 and '06. As you know, this last year, we've also experienced a very trying time for the economy, for families as a whole, because of the pandemic. But we're also seeing acceleration of home price growth. Home prices in our national home price index at CoreLogic, they're up 10% in the last 12 months. Some markets are up more—15% or more. Some less, but 10% nationwide. That's huge. That's huge over one year in an economy where the inflation rate is 1.5%. All prices are up a lot more than 1.5%. And they're up a lot more in the economy where for the average family, their income is not up 10% in the last year. Just looking at the data, it looks [like], "Oh, gee, is there a disconnect? Prices are up. House prices are up so much relative to prices of other goods. House prices are up so much relative to income. What gives here?"

But that's very different from the market in 2005 and '06. The similarity kind of stops there because in '05 and '06, what was driving home price growth [and] the housing boom was easing of credit. Mortgage rates were gradually rising, but credit standards were eroding. And then, if you make credit too easily available without the right underwriting, you are looking at defaults later on. That seems to be inevitable. The probability of defaults will be higher.

This time around, as far as I see, the lending community has maintained credit standards. In fact, in some metrics from the Mortgage Bankers Association or the Urban Institute, they see that credit maybe has even tightened a little bit in the last year. So, the reason for the home price growth is not because of an erosion of underwriting. It's not because of risky mortgage lending products in the marketplace. It's not that. The acceleration of home price growth has to do with record low mortgage rates, where mortgage rates got down to 2.7% on average for thirty-year fixed rate in late December, early January. That fueled an increase in demand to buy homes from the 80-85% of American workers who are doing just fine. They didn't lose their jobs. They didn't lose their businesses. They may be working from home, but they're doing just fine. If you're part of that group where you haven't lost your job, you haven't lost your business, your income is the same or better. There's an opportunity presented to you by the lowest mortgage rates ever since the creation of a long-term fixed rate mortgage in the United States. These rates, 2.7% in early January, [are] lower than during the Great Depression, lower than what banks were offering on FHA loans during the Great Depression. So, if you do have your job and your income, this is a great time to buy. And that's where demand has picked up.

At the same time, and this is very unique because of the pandemic, supply is constrained on two dimensions. One thing is that it's taken a little bit longer to build homes because it's taken a little longer to get local inspectors that come out to inspect the homes that are being built. It's taking a little bit longer because of social distancing at the worksite and all of this to complete a home. A lot of homes are being built. It is taking a little bit longer, but more importantly is that the inventory of homes listed for sale from the existing housing stock has shrunk dramatically. I'll tell you why I believe that's occurred. When you look at who are the owner occupants today, the majority of owner-occupants are baby boomers. The median age on owner-occupant homeowner is fifty-seven years of age. That's the median age. Half of them were older than fifty-seven. Who is at greatest risk during the pandemic according to the healthcare experts? The older population. So, if you were an older homeowner, and you were planning to sell your home in 2020...[or] in March of 2021 but you've got some flexibility on when you sell it—you don't have to sell it now, you could wait—you're going to postpone. You're going to postpone listing your home for sale. You don't want strangers outside of your core family traipsing through your house. It's a pandemic! So many older homeowners who have flexibility of when they're listing, they said, "Hold on. I'm waiting until I get the vaccine. I'm waiting until this pandemic stuff is all done. I'll list the home after that." So, the inventory of existing homes for sale is down sharply from a year ago, from pre-pandemic.

So, let's put these pieces together now. Going back to economics, one-on-one demand and supply. We've got an increase in demand because of record low mortgage rates. A lot of millennials looking to buy homes. We've got a shrinkage of supply because older homeowners—it's a pandemic—don't want to get infected. With more demand, less supply, prices go up. And that's exactly what's driving it right now. My forecast now is maybe in some respects similar to what I had in 2005, we're expecting home price growth to slow over the next twelve months because we expect mortgage rates to be a little bit higher. So, mortgage demand will lessen. And we're expecting seniors to get vaccinated. And so, the ones who've been postponing listing their home for sale, they're going to finally list the home. So, we'll get more supply. That'll moderate price growth. Now, if we have this talk again a year from now and price growth has accelerated, then we'll be really, really worried that we are getting into a bubble. Because it shouldn't. It should really decelerate in the next twelve months.

Maria Paz Rios: You mentioned that your thesis was very involved with demographics, and it's interesting to see you rope that into your forecast and your knowledge.

Frank Nothaft: They're fascinating. They really drive so much, not just the labor markets, but in the housing markets. We look at it all the time. Right now, actually there's a rebound in housing activity in the second half of 2020. It was primarily driven by millennials. Gen Xers had a part to play too, but it was really millennials. There was a big increase in first time buying, and millennials, as you probably know, are the biggest cohort now in the US by numbers in population. There are more

millennials than there are baby boomers, but there are more homeowners who are baby boomers.

Maria Paz Rios: ...If you were to define predatory lending as if you were to add it into a dictionary, how would you define predatory lending?...

Frank Nothaft: I think lending should be done in a prudent fashion where there is a very good probability that the borrower can sustain homeownership. To me, it's sustaining homeownership itself. It's the likelihood of success. Predatory lending in my mind envisions an outcome where the probability of a successful outcome is low. And maybe it's, I don't know if taking advantage is the right word, but it's providing information that might be misleading to the borrower—misleading in terms of expectations of success of the outcome. And it's not the same that there should be no foreclosures and no defaults. With prudent lending, there will always be some defaults and foreclosures, sadly, but there will be. Because sometimes bad things happen to good people. You get an illness. A breadwinner in the family dies unexpectedly. You lose your job. The pandemic hits and you lose your job. You didn't expect that. You lose your business. Sometimes bad stuff happens to good people. So, I'm not saying there should be no foreclosures. Foreclosures, unfortunately, will happen. But there should be a reasonable expectation when the loan is made that it should result in a successful outcome. It's not always going to be a successful outcome, but there should be a reasonable expectation. So, in my mind, predatory lending doesn't fit that view.

Maria Paz Rios: Looking back on the crisis over a decade later, what do you see as its most important lessons?

Frank Nothaft: That's a good question. My first thought, and this might be a little boring, is that you can't escape good underwriting. Fundamentally, you want a good credit decision. Not everyone should get a loan. You want to have good, responsible underwriting conditions at play. That's one problem that occurred in 2005 and '06 with the deterioration of underwriting standards. So, we do need to make sure that they're prudent. Doesn't mean they have to be really tight. Defaults will happen. But they need to be done prudently. That's important.

I think also maybe important is having, whether it's with external groups or internally, just having more of a healthy dialogue and culture [to] voice different opinions. Not everyone's going to agree, but you need to be, staff internally, and in dialogue with external groups, you need to feel like you can express what you see and what you believe in, and be open to that.

Maria Paz Rios: Thank you so much, that concludes our interview.

[END OF SESSION]