



### Alphachatterbox: the life and times of Paul Volcker

**Cardiff Garcia** First of all, thanks for talking to us. Appreciate it.

**Paul Volcker** You're welcome. We'll see how it goes.

**Cardiff Garcia** Here's where I want to start. When you were studying economics, those were pretty exciting times for the profession. Hayek and Keynes were still debating, Bretton Woods had been established in the mid-1940s, central bank independence was still kind of a contentious topic. Who were some of the early influences on the way you think about monetary economics? Who were some of the thinkers that influenced your points of view?

**Paul Volcker** I'm supposed to have some thinkers that influenced me. I don't remember any standing out in particular.

For some reason, I took the advanced economic theory course when I was either a freshman or a sophomore at Princeton from a guy named Oskar Morgenstern, who was part of the Jewish intellectuals that moved to the United States before the war. And he was Austrian, so you got a full exposure to the Austrian school of economics.

To the best of my memory, and maybe my memory is wrong, I could sit through all those economics classes in Princeton, I don't think the word Keynes was ever mentioned.

**Cardiff Garcia** The word...? [overtalking]

**Paul Volcker** Keynes. John Maynard Keynes. Because the money and banking professor, a guy by the name of [Friedrich] Lutz, another Austrian émigré... they were not Keynesian. And in those days, most professors I guess were not yet Keynesian, or at least it was controversial.

Now, when I went off to Harvard, the first course you got -- wasn't literally the first course, one of the first courses you got -- was from Alvin Hanson, who was the principal Keynesian acolyte at Harvard. And all you heard about was Keynes and the General Theory beginning to end. So I had both sides of it.

**Cardiff Garcia** What did you think about Hayek at the time?

**Paul Volcker** Well, Hayek, I picked up, the name of the book is... I don't remember.

**Cardiff Garcia** The Road to Serfdom?

**Paul Volcker** Road to Serfdom. I found it at home one day, I began [re-]reading it. I read it in college.

So that was a good Austrian. I got assigned Road to Serfdom [in college]. That did have an influence -- it was a really very challenging analysis of why free markets work and why they were necessary, politically and so forth.

But I began [re-]reading and it seemed kind of dull, so I didn't re-read the whole thing. But it did excite me in college.

**Cardiff Garcia** What about your early views on inflation and on monetary stability?

**Paul Volcker** Well, I finally ended up writing my senior thesis about the Federal Reserve, and for some reason I expressed a good deal of irritation that they weren't spending more time worrying about inflation.

Now why I thought that, I don't know, maybe because my father was on salary all those years, so he didn't get an increase.

But I was quite critical of the Federal Reserve for not paying enough attention to inflation. That goes back to when I was an undergraduate, of all things.

But I don't remember a particular professor making a particular point about this. But certainly those Austrians that I had in college, I'm sure they were in favour of stability.

Remember, the great debate that my thesis advisor... I was very shy, I never saw these professors. You had to see the professor when you were writing a thesis, and he explained to me the great debate in those days was, it was better to have steady wages and a gradually declining price level as productivity increased, or you have steady prices with a rising wage level as productivity increased. That's the opposite of the debate you have now.

A debate of do you have stability, or is it better to have prices declining and stability of wages -- it was a different environment, obviously.

**Cardiff Garcia** I read in one of the biographies of you that one of your Harvard professors had said that a little bit of inflation was good for the economy, and you thought that that was... BS.

**Paul Volcker** After all that Austrian exposure at Princeton, I went up there and the first economics course I think I had as a graduate student at Harvard was [with] Arthur Smithies, the name comes back to me. He wasn't one of the most famous professors but he'd been in government, I guess he was well known at the time.

And session after session he would drill into our head that a little inflation was a good thing.

And I could never figure out why. But I know he kept saying it, so already at the time I for some reason had an allergy to what he was saying.

But it's interesting, his lectures -- it's the same thing that central banks are saying today. Except I don't think he would've limited it to two percent, but it's a similar argument.

**Cardiff Garcia** So let me just lay out the beginning of this question for our listeners, you'll already know this. The conventional defence of having a little bit of inflation is that if you have zero percent inflation, then you're closer to having a deflationary spiral.

Another one is that if you have a little bit of positive inflation, then interest rates will be correspondingly a bit higher, so if there's a downturn, you have room to lower them.

And then finally, and I think this is associated with Janet Yellen quite a bit, is that if you have a little bit of inflation, then it's easier for companies to give real wage cuts to their employees without laying them off, if they just freeze their wages and then they go down because of inflation. You disagree with all that.

**Paul Volcker** Well, that was the classic argument I guess that Keynes would make, but there's a further argument I learned the other day when I was chastising a Federal Reserve official. "Why are you so hot on getting this two percent inflation?" [I asked]

His immediate answer -- so it wasn't Janet Yellen, because it was *his* -- he said "Well, we think the statistics overstate the real rate of price increase. And if we've got a two percent statistical indication of inflation, that really is stability, if it was correctly measured."

If that's true, and there may be some truth to that, if that's true then it disrupts all the talk about lack of productivity growth, and lack of real wages. Because if we've been deflating the nominal figures by too high an increase in price level, productivity is really better than what we thought, and wages are really doing better than what we thought. And there may be some truth to that.

**Cardiff Garcia** But you're still of the same opinion that you had back then about inflation?

**Paul Volcker** I would never interpret it as you have to have exactly zero. Prices tend to go up or down a little bit depending upon whether the economy's booming or not booming. And I can't understand making a fetish of a particular number, frankly.

What you do want to create is a situation where people don't worry about prices going up and they don't make judgments based upon fears of inflation instead of straightforward analysis of what the real economy is doing.

And I must confess, I think it's something of a moral issue, too. The government is responsible for money and responsible in a broader sense for the economy. And you shouldn't be kind of fooling people all the time by having inflation they didn't expect.

Now, they answer, well, if they expect it, it's okay. But if they expect it, it's not doing you any good anyway. Those arguments you set forward don't hold water if you're expecting it.

**Cardiff Garcia** You graduated with your master's from Harvard. You spent some time in Europe thinking about pursuing a PhD, didn't do that.

**Paul Volcker** Well, that's not quite right.

**Cardiff Garcia** Okay, what was the timeline?

**Paul Volcker** I was at Harvard and they give you an MA when you pass your general examination for the PhD, and I went off to London to write the thesis. But I got lazy and found other things to do than writing a thesis in 1952, or whenever it was.

So I didn't get around to writing it. I went back and got a job. I wasn't intending to become a professor anyway. In those days, the idea of getting a PhD actually was not as common and was not considered de rigueur the way it is today.

**Cardiff Garcia** You returned to New York.

**Paul Volcker** Well, I had a good time, I learned a lot in London, I got around Europe, I ran into a girlfriend.

**Cardiff Garcia** You got distracted by a girlfriend in Europe?

**Paul Volcker** I got distracted and it probably helped me. So I don't think I really wasted my time, but sometimes I think maybe I should've gone back and done something.

I had a good thesis topic, I must say, but it's irrelevant now.

**Cardiff Garcia** Oh, what was it? I'm curious.

**Paul Volcker** In those days, it would've been on monetary policy, but the difference in monetary policy in central banking between the US, which had a very diversified banking system, 14,000 banks, and what's going on in the UK, which in those days only had 4 or 5 banks that made a difference. They had four big banks and two big banks by our size. But they didn't have a lot of little banks. And would that make a difference in operating monetary policy and how you did it and the effectiveness. Anyway, I never did it.

**Cardiff Garcia** Did you already have a conclusion about whether or not it altered the way monetary policy was transmitted?

**Paul Volcker** No, I had an open mind, I didn't have a conclusion. I shouldn't tell these stories.

I was at the London School of Economics and I had a fellowship. I went and by British standards in 1951-'52, the war was over but some of the destruction was still around.

The British economy wasn't very happy anyway, and London School of Economics really didn't cost anything. And I was given this fellowship that provided for living expenses and academic expenses. The academic expenses were almost zero. So I had enough money, more money than all my student colleagues.

It's neither here nor there, I don't know why I got off on that subject. But when I went around and finally saw the professor who was my tutor, who was a well known monetary historian and analyst, Richard Sayers...

**Cardiff Garcia** What was his name?

**Paul Volcker** Richard Sayers. S A Y E R S -- He wrote a great history of the Bank of England, among other things. But I knocked on his door and entered in, and he put his sandwich under his desk. He was a very modest man. I introduced myself. He said, "Oh, you're an American student? Are you here to work or to play?"

**Cardiff Garcia** He asked that just because you were an American?

**Paul Volcker** Yes, that was the first sentence that came out of his mouth. He'd had some experience, I'm sure, with American students that came and played.

**Cardiff Garcia** That's a great story. You returned to New York and you took a job at the New York Fed observing the bond trading desk, I believe?

**Paul Volcker** Well, I came back and took a job as an economist at the Federal Reserve Bank of New York. Which I did at, I can say, a junior status probably, intermediate status. You would never do that these days if you didn't have a PhD. But I was an economist for two or three years.

And then, it was my mentor who did it, he transferred me to the so-called trading desk. This was the holy of holies in the Federal Reserve Bank of New York. That's where we actually operated in the market. We bought and sold securities and executed the open market operation, the open market committee's directors.

And mere economists were not considered suitable for that delicate operation and understanding how markets worked and all the rest, and I was the first economist to have that exposure.

**Cardiff Garcia** Why weren't economists considered suitable for that job?

**Paul Volcker** Well, they were academic people who didn't understand, by instinct, markets. And didn't understand the importance of the inflection of your voice when you talk to the traders, and whether you were giving away anything you shouldn't be giving away, or you fully understood the inflections in their voice and so forth.

The guy that got me there was Bob Roosa, who was vice president of the bank. He was the most senior, very respected economist then. And he had been moved. That was the real breakthrough. He was moved to be one of two or three people, senior officials in charge of the trading desk, and he was there for a little while and he got me to go down there. He thought it was important as an economist to have some exposure to the market.

**Cardiff Garcia** Did you have ambitions even back then when you were very young to have a career that was mostly in public service (or in the public sector or the quasi-official sector), or did you just essentially take the job you could get and you weren't really picky about it yet?

**Paul Volcker** Well, it was more than taking the job I could get. But my father was, most of his life, in public service. And I grew up in an environment where he was the city manager of the town I grew up in.

And that's all I knew as a kid. My father was the city manager of the town and that was an important thing and he was very well respected in the town. And you kind of looked up to him -- this was a reasonable career or whatever. It wasn't, obviously, hugely well paid or whatever. He used to keep

telling me, "Now you go into business, don't do all this public interest stuff." But it was monkey see, monkey do.

So I wasn't very conscious about it, but it was a natural thing to do. And when I first graduated from college, I graduated because the terms were mixed up after the war. I was one semester ahead of most of my classmates.

I graduated in February instead of June, and I was going to graduate school, which I knew in the fall, so I had eight or nine months. I had more than the summer off, and I went round knocking on doors in Washington, which you never do now.

I'd knock on the door and said I'd like a job for nine months for the Treasury, the Federal Reserve, couple other places I went. You couldn't imagine doing that now. But in those days, they listened to me. And I got offered one job, which I didn't take, and [then] I went to the Federal Reserve.

This is when I got out of college. And I went to the Federal Reserve [in Washington DC], knocked on the door and the personnel people said, 'All right, well you sit here, let's think about it', and two of the most senior economists showed up and interviewed me.

And they finally said, "Well, I'm sorry, you've got good qualifications and so forth, but we don't hire people temporarily that don't have a graduate degree, so goodbye, come back some other time."

So I always like to say I got turned down at the Federal Reserve for my first job. So then sort of by accident I got this job at the Federal Reserve back in New York [after graduate school], but it was the flip of a coin. I might've gone to a private bank at the time.

**Cardiff Garcia**      So you worked at the New York Fed for a few years, following Robert Roosa. In the mid-1950s, you went to work for five years as a financial economist at Chase Manhattan. What did you learn?

**Paul Volcker**      Well, I learned about how banks work, so that was not a bad experience.

It was in '57 I think when I went over. They offered me a job out of the clear blue sky or dark cloud or whatever. And it was a 50 percent increase in salary, or whatever it was.

And I was getting kind of worn. The Federal Reserve could be a bit dull in those days. And it was a very bureaucratic institution, as the story about the trading desk... you know, you never saw the president or talked to him. You wrote a memorandum some time, you had a question. You would write a reply that went to your superior, that went to his superior, finally got on the president's desk and the president may have written a note on it, going back through layers before you got it.

**Cardiff Garcia**      Did you find that Chase was less bureaucratic?

**Paul Volcker**      Was much less bureaucratic.

You may have thought -- Chase was a big bank for the time -- you would've thought it was bureaucratic. I hadn't been there three weeks before the president called me up and said, "Look, I want you to look into something". Then he began discussing with me whether I thought the dollar was overvalued or something. Nobody in the Federal Reserve asked me this kind of stuff. So it was, from my view, much less bureaucratic.

**Cardiff Garcia** Was that the primary lesson about working for the government versus working for the private sector?

**Paul Volcker** Private sector can be bureaucratic too, but I think it was more peculiarly the Federal Reserve Bank of New York was pretty rigid, much more than it would've been in Washington, I'm thinking.

But [Chase] was less bureaucratic. I then could work with *their* trading desk, which was an active trading desk. I wasn't on the desk, but I sort of worked with those people. And so I had that exposure to an actual trading operation in the real world, and I did projections of how much money we had to lend, and I did relevant stuff for the bank.

**Cardiff Garcia** Did you also gain an appreciation for both sides of it, so that later when you went back to Treasury and the Fed, you sort of understood what the banks were doing?

**Paul Volcker** Absolutely. It was an important part of my background.

**Cardiff Garcia** 1962, you go to the Treasury Department, you're named Director of Financial Analysis, and then a year later or so Treasury Deputy Undersecretary for Monetary Affairs. What brought you back to the government, what took you to Treasury?

**Paul Volcker** What brought me back to the Treasury was what brought me to the trading desk in the Federal Reserve Bank of New York. Bob Roosa had become Undersecretary of the Treasury for Monetary Affairs, and he'd been there a year.

It's hard to replicate the atmosphere at that time. But Kennedy had been elected president. It was a new world, we were going to do everything good and solve all the economic problems, have peace and prosperity in the world.

I remember thinking *God, they're going to solve all the problems before I ever go down there*. That didn't work out that way, but Bob decided to set up a new group, office of financial analysis, as it was called, to bring in some economic scholars to refresh the place. And so my job was to hire some of these people, get them in, get them integrated into what the Treasury was doing.

Turned out to be not a very good idea from my standpoint, for two reasons. A think-tank within the government doesn't work very well. They're either actively involved in policymaking and policy officials, or they're not paying any attention to it.

So we did a little of that and we did the forecasting for the Treasury. But for some reason I got exposed to the other undersecretary, which was Joe Fowler, and to the Secretary of the Treasury, who was then Douglas Dillon, who became kind of a hero of mine. And I, without any great planning, sort of became the personal economist for Douglas Dillon, the Secretary. I saw a lot of him.

And then when a guy named Dewey Daane, an old Federal Reserve man who had been Deputy Undersecretary, went to the Federal Reserve Board, I got his job, which at that point then exposed me to the international negotiations.

So I had a pretty broad experience in the Treasury and I was in the policy side, the economic side, the financial side of the Treasury, debt management and all that stuff. And of course the experience at Chase helped in that respect.

**Cardiff Garcia** Here I want to start talking a bit about Bretton Woods.

You started to have some doubts while you were at Treasury about the gold convertibility part of it. Can you just talk about how you arrived at that hesitation?

**Paul Volcker** Let's not get to doubts first, let me get to the conviction first.

**Cardiff Garcia** What's the conviction?

**Paul Volcker** Well, the conviction of the Treasury, and Bob Roosa was the leader in all this, was that the dollar convertible into gold as the fulcrum for the exchange rate system internationally was not to be tampered with, was not to be questioned. It was fundamental to the Bretton Woods System, which everybody was very proud of having established at the end of World War Two

And it was the sacred duty of the Treasury in the United States to defend that system. I began having some doubts whether that was going to be possible. But those, I'll tell you, were very much hidden. You expressed those doubts in the Treasury at that point, which I'm not saying I did. You would've been put in a...

**Cardiff Garcia** In a silo somewhere.

**Paul Volcker** In a silo someplace, put on a stool in the corner and the dunce cap on.

But it was a constructive effort to cooperate internationally, to defend this basic apparatus of the international monetary system. And over time, beginning then, all kinds of initiatives were taken, largely led by Roosa. The swap agreements were established and largely by the Federal Reserve, but it was Roosa who got the Federal Reserve to establish the swap agreements.

We borrowed some money occasionally in foreign currencies, which had never been done before. We strengthened the IMF and special agreements to borrow and on and on, and then began putting controls on some international transactions. We had something called the interest equalization tax, which is designed to discourage foreigners from borrowing in the United States, taking the dollars out of the United States, weakening the dollar.

So it was a whole panoply of things began developing, developed to sustain the stability of the dollar. I was in a subordinate role, but I was sort of in the middle of it, too.

**Cardiff Garcia** Helping to implement some of these controls and some of the other ideas that Bob Roosa had.

**Paul Volcker** Eventually when I became undersecretary, yes, I had to do all that. But it was an interesting experience. As I say, Douglas Dillon was there. He left eventually when Johnson became President and Henry Fowler, called Joe Fowler, became Secretary, who I'd known because he had been Undersecretary, and he became very friendly to me.

I don't quite know why, because I worked much more closely with Roosa, but when Fowler came in, he wanted to reform the system, not reform those basic elements I talked about -- but develop something to replace gold or to supplement gold, which had been a matter of discussion. But Roosa never wanted to talk about it, because it raised some question of the dollar.

**Cardiff Garcia** That had to be kept quiet.

**Paul Volcker** He wanted to keep it quiet, but Fowler came in looking for something to do. He decided this is his story. He would go after reform of the system in that respect. And I told him that was a crazy idea.

Anyway, the interesting part of that experience was a big fight between the Federal Reserve and the Treasury, to some degree. But William McChesney Martin, the then-chairman of the Federal Reserve, and Lyndon Johnson had a battle. And the Federal Reserve finally won, and asserted their independence, and Mr Johnson was not very happy.

And I was in a most peculiar position because I thought the Federal Reserve position was correct and the administration position was incorrect -- and I was asked to write stuff to defend the administration. It was a little awkward. But I left about that time, right after that happened.

**Cardiff Garcia** Did you leave for other reasons or did you leave because you thought it was inconsistent?

**Paul Volcker** I think after four or five years, I think it was time to go. I had kids.

**Cardiff Garcia** And you returned to Chase in '65.

**Paul Volcker** I returned to Chase.

**Cardiff Garcia** As the Director of Planning for four years.

**Paul Volcker** Right, that's right. That wasn't nearly as interesting as being in the Treasury, frankly.

**Cardiff Garcia** It's interesting what you say, though, that you had some private doubts, but that it was hard to express them at the time because Bretton Woods was considered an unshakeable part of global stability.

**Paul Volcker** And by the time I came back, it was clearly shakeable.

But still, I felt responsible for defending it to the last stab, so to speak. I didn't want to become the engine for upsetting the system.

By that time, the SDR had been created, largely because of Fowler's initiative. But it had never been used and (I actually forgot about this) when I was sitting there as Undersecretary for Monetary Affairs, these positions have all been changed, I know, there were just two when I was there and there was no Deputy Secretary.

I had half the Treasury and I had all the interesting part, I had all the domestic finance and the national finance, debt management, credit programmes, what else is there?

**Cardiff Garcia** This is 1969 when you went back to the Treasury.

**Paul Volcker** 1969 when I went back.

**Cardiff Garcia** Undersecretary of Monetary Affairs, first I think started working for Treasury Secretary David Kennedy, was it?

**Paul Volcker** Yes.

**Cardiff Garcia** At the beginning. Here's my first question about that period in your life. You were a lifelong Democrat.

**Paul Volcker** Well, now that isn't true.

**Cardiff Garcia** You were a Democrat.

**Paul Volcker** I was a Democrat, but kind of when I was young and naïve -- I guess my family or at least my father was Republican -- I considered myself a Republican. By that time [1969], I had become, yes, a Democrat, no question about it.

**Cardiff Garcia** A Democrat. You weren't Richard Nixon's biggest fan. But when he asked you to come work in his administration, you took the job. What convinced you to take the job?

**Paul Volcker** What convinced me to take the job? How could I turn down the most interesting job in Washington? I still think it's the best job I ever had.

Why, you say, Nixon?

Nixon, I don't think, had anything to do with it. [David] Kennedy, apparently, who turned out not be a strong Secretary, but he apparently put his foot down and insisted upon it, and I barely knew him.

Now, the other undersecretary I did know, and he was a Republican, and he was close to Kennedy; he must've vouched for me and pushed me. But still to this day I don't quite know. Some reason Kennedy just saw there. I was told, I don't know if it was true, I was the only acknowledged Democrat who was in the administration.

And I've seen stuff since then that Nixon was always suspicious of me. He never forgot that. Not that I was that close to Nixon. I was not. But he, I'm sure, didn't quite trust me.

**Cardiff Garcia** You felt like an outsider in the administration a bit?

**Paul Volcker** Well, not so much, because I was very active. I had plenty to do and I got along with the Secretary. And then John Connally became the Secretary and I got along with him. So I never felt like an outsider, I was in the middle of it. But I was not part of the White House operation at all.

**Cardiff Garcia** But you were put in charge of an interagency task force, and it was even known as the Volcker Group.

**Paul Volcker** Yes, absolutely. There had been such a group, I don't know if the previous group had been immortalised in a presidential directive, but this always struck me as odd.

And compared to now, I was named or nominated to become Undersecretary, I guess, informally. I couldn't be formally nominated until the president got inaugurated. But it was clear I was going to be nominated for Undersecretary of Monetary Affairs.

My office overlooked Pennsylvania Avenue. And on inaugural day, the parade churning down Pennsylvania Avenue, I'm sitting in my new office. I was not entitled, I was a private citizen, but in those days, yeah, you're going to become Undersecretary, here's your office.

And I got this memorandum from the National Security Council plunked on my desk.

**Cardiff Garcia** From Kissinger.

**Paul Volcker** From Kissinger outlining president arrangements for international monetary negotiations, or something. Said you're going to establish this group and I would be the chairman, and a Kissinger guy and a State Department guy and somebody else, a Council of Economics guy would be in this group. But I would become the chairman and I was report to Henry Kissinger.

**Cardiff Garcia** How did that go over?

**Paul Volcker** I went running down to David Kennedy. I said, hey, you better do something, set this up, this is fine for me but it ain't so good for you. You better do something with the White House. I don't think he ever did anything.

**Cardiff Garcia** Was this a classic Kissinger power play, like trying to get you to report to him instead of to your actual boss?

**Paul Volcker** Well, I don't know how much... I think one of Kissinger's staff members, who I knew at the time and know very well since, I think he had an interest in international monetary affairs. So I suspect he cooked this up and gave it to Kissinger, and said this is the way we ought to organise this. Kissinger would've given it heavy attention.

But I don't know the answer to the question. But anyway, de facto I never reported to Kissinger, I reported to Secretary of the Treasury.

**Cardiff Garcia** Sure, your boss.

**Paul Volcker** He was my boss, yes.

**Cardiff Garcia** So you're the head of this task force. And then in June 1969, you presented some of the conclusions to Nixon and some of the other economic brain trust. And you said that the potential threat to the US dollar's role was, and I'm quoting here, "a common recognition at large-scale conversion [of US dollars into gold] would be frustrated by a lack of adequate gold reserves", and that driving the wish to convert were domestic inflationary pressures.

And this was where you first suggested that one day, the possibility of suspending the convertibility of US dollars into gold might be necessary. Nixon later on did accept parts of that plan, but before we get to that, I'm curious to know how Nixon reacted in the moment when you presented the ideas.

**Paul Volcker** Well, you may be quoting correctly, but it was put in a context of *this may be a possibility but we're going to fight that for the moment*. We've got to give sustaining the system a fair chance, and we'll go out and we'll create a lot of SDRs and do other things to defend the system. But it may not work. But this is the course that we recommended.

And I think, frankly, Nixon got tired of listening after a while and he said "Okay, enough", and off we went and I took that as agreed it's the policy.

**Cardiff Garcia** This was interesting, too, because although you still believed in the stability brought by Bretton Woods, at the time you were also recommending a limited amount of exchange rate flexibility and a revaluation of the dollar against some other foreign currencies.

**Paul Volcker** Yeah, we were recommended some widening of the band to get a little flexibility. I don't remember all the details. You've read something that you have read more recently than I. I don't remember.

I remember we sent this big report in, and one of the possibilities was doing what some people, particularly Republicans, recommended: why don't we double the price of gold and go on and we can do that, and that memorandum you're talking about strongly rejected that course. It would've sent Bob Roosa to his grave earlier.

**Cardiff Garcia** Here's more of I guess a philosophical question. In economics, there's this idea of the monetary trilemma, which says that (for our listeners) you can have two of the following three things, but not all three, and those things are: fixed exchange rates, free capital flows or an independent monetary policy. Your preference seems to have been for fixed exchange rates as were called for by Bretton Woods, no capital controls because you'd had some experience with that and you weren't convinced they were going to work.

**Paul Volcker** Yeah, exactly.

**Cardiff Garcia** And you wanted monetary policy to be consistent across countries to make sure that no one country would drive up inflation at the expense of global monetary stability.

How did you arrive at that preference, or is that not right?

**Paul Volcker** Well, I guess that's a fair summary. But I didn't want to go to a floating system. I was worried about the instability that would create and the whole question was how you could get the adjustments going, particularly at that point with Germany, but increasingly with Japan, because they were running the big surpluses.

And they couldn't run the big surpluses and we run a deficit all the time, and sustain the position we were in. So we were going to fight it out, I guess, as long as seemed reasonable.

And what worried me more than that trilemma, which I don't deny the trilemma worried me over time, but more to the point was the so-called Triffin dilemma, which still exists.

The Triffin dilemma said you can't keep providing international reserves by more and more dollars outstanding and maintain the price of gold, because at this proportion, sooner or later, we become so

great that it no longer became sustainable. That was the dilemma that we were in and that was the dilemma that the SDR was supposed to help cure.

We can create a lot of SDRs so in effect we can supplement the gold supply with artificial gold. Anyway, what happened then, nearly as I can remember, well, there was a sense of crisis when I took office. Not *because* I took office. [Laughter]

There had been a crisis in the gold market before and a lot of unsuccessful international negotiations at the end of the previous administration, but I guess it was in -- what are we talking about, that'd be 1970, I guess -- but for other reasons, the Federal Reserve tightened policy, and that took the pressure off the dollar for a while.

So we had a kind of free ride for a year or more, where you didn't have to face the inevitable, if it was inevitable, you had a little more time to work it out. Gave us a year but it couldn't be worked out. It was impossible, actually.

**Cardiff Garcia** You were then, and I am assuming you are now, someone who's always believed that the Fed should take into account international considerations. Do you see any parallels between the lessons back then and some of the more common worries now, where Federal Reserve policy might drive some international capital flows? Should the Fed always take into account what's happening abroad?

**Paul Volcker** You ought to be knowledgeable about it, but it's not often you can take a lot of account of it. And typically, I'm sure to this day, the Federal Reserve, as a decision-making body, I guess inevitably the domestic priority is so strong and -- now I will exaggerate -- the only person that cares about the international side is the chairman. Now, that's not absolutely true, but it tends to be true. He's the ones who's exposed to that range of policy issues more closely than the others.

But in the end you can't go entirely contrary to domestic policy. No central bank can. They are instruments of your home government; they're not instruments of the world. But there are times when you can get cooperation and work together, and it happens at times.

**Cardiff Garcia** Let's go ahead to 1971. Nixon announces the new plan suspending gold convertibility and he adds a temporary wage price freeze and also a temporary import surcharge. Some of those ideas coming directly from you and from John Connally. There was some turmoil in global finance.

**Paul Volcker** The good ideas came from me.

**Cardiff Garcia** The good ideas came from you, okay. I think the import surcharge was his idea.

**Paul Volcker** The import surcharge was definitely Connally's idea.

**Cardiff Garcia** The temporary suspension of gold convertibility and the wage price freeze came from you.

**Paul Volcker** Well, yeah, I wasn't alone, but I had concluded probably six months earlier that it was inevitable that we were going to have to change the then-present system.

It's just a question of how you did it, when you did it, and I had all kinds of plans in my mind and on paper and so forth.

Connally became Secretary of the Treasury earlier that year, and for whatever reason, he was certainly, I think, favourable, looking for an avenue for change, constructive change. People think he was looking for destructive change.

**Cardiff Garcia**      Destructive change instead of constructive change.

**Paul Volcker**      I was looking for constructive change, and I'd written some stuff for him, which I'm sure he circulated around.

My concern was there was no way of negotiating a change in the system, and there were two big interests at stake. It would take a big change in exchange rate and it was nothing you could negotiate quietly, and then have everybody agree on a big change.

You had to have some force behind the proposal, and the only way to do it would be to say, "I'm sorry, we simply don't have the resources to provide gold upon demand anymore."

Fortuitously, right at the time of the decision making, we had some demands which we couldn't possibly have met, but my idea, the great plan, was we'd float for a while, negotiate a change in exchange rates that was adequate, and that was the plan that was accepted at Camp David and so forth.

But one big important thing to me was left out. Well, something put in that I didn't like was a surcharge. Because that put an antagonistic...

**Cardiff Garcia**      It would maybe be interpreted as the US waging kind of an economic battle against other countries.

**Paul Volcker**      Right, and I thought it would make negotiations more difficult.

Connally obviously thought it would make the negotiations easier. He may have been right, I don't know. But it was not my idea.

But my idea was, as soon as we could get a reasonable exchange rate adjustment, then we ought to negotiate a change in the system that would offer some continuing stability in the international monetary system.

Well, from the politicians' standpoint -- and I was naïve at the time -- that was something for the future. That's not what worried them at the moment.

So we didn't get any commitment to that, and it was -- from my naïve standpoint -- Connally and Nixon between them made the suspension of gold a great political victory. Most people, when they're devaluing or changing the currency, it's a problem, "Forgive us, we'll go back, we'll do better next time". No, with them, they made it into a triumph, which was a remarkable political lesson to me.

But there was no urgency for reform. Now later, we had the devaluation, it wasn't adequate. We had the realignment of exchange rates. We changed the price of gold, which made reform more difficult,

in my mind. But we did then have a negotiation to put the system back together again, and at least in the time we had available, we couldn't reach an adequate agreement.

**Cardiff Garcia** So, in order, the UK floated, then later the Japanese, and then eventually most of the rest of Europe.

**Paul Volcker** Well, what happened was we agreed upon these new exchange rates at the so-called Smithsonian. From my standpoint, anyway, the exchange rate change was not adequate. The size of it wasn't adequate to deal with our balance of payments problem.

So it was inevitable we'd come under pressure again, and we did not. And then the politicians were dead set against this, but I couldn't argue against it.

We couldn't resume convertibility because it was obvious it couldn't last. But we tried it out and see what happened without the convertibility. We had the fixed exchange rates.

And I think it was in the summer that the British were first to change, and they didn't have a very strong reason to do it. They were under modest pressure but not heavy pressure.

Then there was a disturbance in the exchange markets in Europe in January, I guess, what would've been January of '72.

And it was a lot of churning of exchange markets in Europe. And I said, look, this is our chance to get a decent exchange rate. Why don't we use this, everything is up in the air anyway: why don't we use this to negotiate a reasonable exchange rate change from the dollar.

So I go running off to Japan and running off to Europe and we negotiated this further sizeable exchange rate change in the dollar. But there was not enough commitment to it. My own feeling was [if] we change the price of gold again, that there'd be a further speculation in the gold market, which there was, and that was too difficult to keep the exchange rate steady.

So we ended up, for lack of anything better to do, floating. Which some people in the United States liked anyway. So that's where we were then, that's where we are today.

**Cardiff Garcia** Did you think -- after it became obvious that a system of floating exchange rates was inevitable -- were you still somewhat hopeful that the benefits of Bretton Woods could at least be replicated under a floating exchange rate system?

**Paul Volcker** You couldn't go back to all the rigidities of the literal Bretton Woods system. But could you have a system that provided for more stability in exchange rates? Yes, I thought so then, I think so now, but it's been so long since we've done it.

It's hard. Not many people are inclined, or countries are inclined, to enter into that negotiation. There've been some advocates here and there. In this so-called Group of 30 I used to be chairman of were a lot of central bankers and finance officials. And as we'd get together -- I attended part of a recent meeting -- I said we really ought to attach priority to monetary reform, do something to get more stability. And one or two others go, that's right.

Everybody else sat there and gave it no support, which is a fair characterisation of the mood around the world in terms of getting a more stable exchange rate system. Someday, but not right now.

**Cardiff Garcia** So you're at this role at Treasury until 1975, and here's where I want to ask you a bit about Arthur Burns.

Burns replaced at the Fed a personal hero of yours, William McChesney Martin. Burns had been an economic counsellor to Nixon himself. [Burns] was against gold convertibility being suspended during the time that you were there at Treasury, and he also made a famous statement about monetary policy, which was that monetary policy is made in Washington, not in Paris. And you were a little bit disheartened by that, because you thought that international concerns should be taken into account. How would you define your relationship with Arthur Burns?

**Paul Volcker** Well, Arthur Burns was a famous professor of economics, and he was, of course, my elder, and I respected his economics; he was a specialist in business conditions and economic cycles, that was his specialty, and I gave him a lot of weight in that area.

**Cardiff Garcia** In *that* area.

**Paul Volcker** Yes. Financial markets were not his thing. He thought they were. He thought everything was.

But he was totally unrealistic in thinking that we could negotiate a big exchange rate change and sustain gold at the middle of the system, and so forth. To me, it just was not sensible.

And then when we did make the negotiation to change the exchange rates -- as you refer to this meeting in Paris -- when a logical question of the press was, "Okay, you've made all these changes now; are you going to conduct monetary policy in a way that's supportive of these changes??

And Arthur takes the microphone from George Schulz, [who] was there, and goes, "I want you all to know that monetary policy is made in the United States, not in Paris." Which is not exactly, I would argue...

**Cardiff Garcia** Not the most cosmopolitan thing that a Fed chair has ever said.

**Paul Volcker** We had a meeting with Arthur, George Schulz and I, in Paris before the final meeting there to ask, *do we put it together again?* And Arthur said "Yes, we're gonna put it together again, we've got to return to fixed rates, we've got to do it."

I said, "Arthur, if we're going to put it to again, the first thing you've got to do is get on a plane, go back to Washington and tighten money -- because there's no way you can hold this together with the monetary policy we now have."

He was not ready, of course, to do that. But anyway, there we were.

For reasons I never quite figured out, Arthur -- this is a few years later -- just got after me, after me, after me to become President of the Federal Reserve Bank of New York.

**Cardiff Garcia** Right, this is what's interesting, is that you guys had disagreed on a few ideas.

**Paul Volcker** I don't understand it.

**Cardiff Garcia** But he wanted you to be the New York Fed President, knowing that you might disagree with him once you were there.

**Paul Volcker** Yes, he must've. So I don't know whether he thought this was a way to get me out of the way or... Anyway, I finally yielded, when I was really anxious to get back in the private sector.

**Cardiff Garcia** You were anxious to get back into the private sector, but you still agreed to become the New York Fed President.

**Paul Volcker** Well, I guess I was weak, I couldn't get myself to say no. And maybe at the end I... I don't know.

**Cardiff Garcia** While you were the New York Fed President, how often would you say you disagreed with the rest of the FOMC in terms of the appropriate course for monetary policy?

**Paul Volcker** Well, the FDIC [sic] was pretty well split during a lot of that period. I'm not sure, looking back, as to whether I actually dissented when Burns was still the Chairman. But I disagreed a lot. Whether I actually dissented, or how many times, I don't remember.

Then [William] Miller became Chairman and I began dissenting in virtually ever meeting. Which is unusual because the President of the Federal Reserve Bank of New York likes to line himself up with the Chairman of the system to show some unity and credibility and so forth. But there was a split on the committee, and a lot of the banks were more in favour of tightening than the Reserve Board members were.

**Cardiff Garcia** More in favour of tightening, okay. Did that influence your views at all on the necessity of having a consensus on the board or did you think that was a healthy thing, to have opposing voices speaking loudly?

**Paul Volcker** Well, if you're the chairman you always like to have a consensus; if you're opposed you think it's a healthy thing to oppose! There's a little too much opposition these days. Now they have a system: they oppose in public before the meeting but they don't oppose at the meeting.

**Cardiff Garcia** The reverse of what you had back then.

**Paul Volcker** The reverse, exactly.

**Cardiff Garcia** Okay, 1979. After a very brief period in which William Miller was the Fed chair, he ends up being reappointed to Carter's Treasury Department.

**Paul Volcker** Appointed.

**Cardiff Garcia** How confident were you that you would be tapped to be the next Fed chair from your role at the New York Fed?

**Paul Volcker** I wasn't confident at all. I didn't really think about it.

When Burns left I was President of Federal Reserve Bank of New York. It was logical that you would; simply you're President of Federal Reserve Bank of New York, I'd been in the Treasury, I was pretty well-known, so it would not have been a surprise to be nominated as Chairman of the Federal Reserve. But of course I wasn't. I didn't know Carter. It was not particularly... I guess Blumenthal was Secretary of the Treasury. I had no great expectation but it would not have been a surprise.

When the second thing came up, when Mellon [sic, Miller] was made Secretary of the Treasury it was done rather suddenly. Nobody was expecting that and there was suddenly an opening in the Federal Reserve that nobody...

**Cardiff Garcia**      Had expected.

**Paul Volcker**      ... nobody had expected, nobody knew anything about. I didn't have any particular expectation. It was a matter of just a few days so I did not have... I was surprised when I got a telephone call!

**Cardiff Garcia**      So you start at the Fed. Did you know that immediately, because you were new there, you wanted to move as quickly as possible to tighten policy at a pace that had outstripped what had happened there before? And how hard was it to convince the rest of the FOMC to go along with you?

**Paul Volcker**      I forget my timing a little bit here. There had been a change in the discount rate, either immediately after I became chairman or a few days before I became chairman. And then I didn't think it had been enough so we had another change, I guess, in late August or early September, I can't remember.

But I thought these two big discount rate changes within the space of a month or so; I thought, this will begin making an impression on the market. Didn't make any impression on the market at all because the discount rate is just a Board of Governors' vote and it was four to three, and that hadn't worried me maybe as much as it should because I knew I had four votes. We could have gone out and raised it again two weeks later and still had four votes!

But the market said, "Okay, it's four to three, that's the last change we'll see, it's gotten too close, too controversial, there won't be any more."

So this is really what stimulated me to say, "We're going to do something to get more unity here and get a tougher policy approach." So that was the beginning of changing the way we were going about policy, which did command unanimity for a variety of reasons.

It was not unlike what some of the presidents in prior years had been advocating, some of them forgot about... they're probably different but it was a version of what some of them had advocated. And I guess inflation kept getting worse and I guess they didn't... We did have a discount rate change at the same time but I think they were convinced that with the change in approach, they ought to give it a chance. So we had unanimity and it was important to have unanimity.

**Cardiff Garcia**      Your monetary policy approach throughout your years as Fed chair is pretty well-known by now -- that you had to get aggressive to bring down inflation, and you did. And there were a lot of complaints at the time from different parts of the economy, there were all these symbolic things happening, where farmers were driving tractors onto the lawn in front of your

offices. I don't want to go through the details of all that too much. I just want to ask if it was hard on you personally, or maybe even on your family, as a lot of the complaints really ratcheted up. And there was even some talk in Congress about limiting central bank independence. Was it hard on you personally to withstand all that?

**Paul Volcker** There was one former Congressional friend that got up every session of Congress and asked for my impeachment, every day for three years.

**Cardiff Garcia** And asked for your impeachment?

**Paul Volcker** Yes.

**Cardiff Garcia** Do you remember who it was?

**Paul Volcker** Yes, Henry Gonzalez. How could I forget?

Anyway, look, I'm getting to be an old man; this all happened about 30, 40 years ago. I'll tell you my sense of what it was.

First of all, there was a lot of concern in the country about inflation and the poor performance of the country. Carter got voted out of office, basically because of all this concern. He went up on the mountain and fired his Secretary of the Treasury and others. "Malaise" was the magic word and people weren't happy, maybe not quite as unhappy as they are now, but there was some of that same feeling. That stagflation had us by the throat and so people were ready for some change.

So this very tough policy and eventually a big recession -- there was a feeling, I hold to this day, there was kind of a feeling that, *look, we're in a very unhappy situation and the Federal Reserve's trying to do something about it.* And we did some things that they could understand were going to tighten down on the money supply.

Milton Friedman had made that... Milton Friedman was not my favourite but he made the slogan for all the right policies.

So the mass of opinion may not have been highly favourable but it wasn't out for attack. People that got -- the farmers: somebody can drum them up and get their tractors out there.

The interesting one was homebuilders. Homebuilders are always the ones stuck in this kind of tight-money situation and I was very fortunate, having a leadership of the homebuilders which was quite constructive. They kind of understood what was happening and they'd come in and see me and we'd have a conversation.

Farmers would come in and see me. We'd make some little change to show them we were sympathetic to what they were doing and the farm leader never let a big... He may have put the tractors around once but...

And there were community groups that would surround us once in a while.

But the homebuilders got caught on this thing of sending me 2x4s! "We don't need 2x4s any more, we'll saw them up and send them in to the Federal Reserve." You're smiling but it was kind of a joke

on their part! It was showing that they were doing something, but it wasn't really. Some of them said, "Tighten money, get rid of inflation."

But what I remember there, which I think was meaningful to me anyway: Homebuilders asked me to go out and address their convention in Las Vegas in the middle of all this, and I said okay.

I was out there. I remember walking towards the auditorium where I had to give this, and I ran into a Senator who was not happy with us. He was quite unhappy with me personally. He said, "What are you doing out here? The homebuilders are having a convention. They'll kill you!"

So I walked from this thing and did my uplifting speech to the homebuilders: "Things are tough but let's get through it, they're going to be much better, we've got to do this and get it done." They all stood up -- and collective applause when I got finished!

**Cardiff Garcia** Standing applause.

**Paul Volcker** There was nobody throwing darts at me and so forth. They were willing to accept the idea that something had to be done, and some day it would be over and they'd begin to build homes again.

And I think that was the attitude of the country more broadly, which is why the Congress never did pass those resolutions. They talked but they never did anything.

I don't know how close to the edge we were, but was I worried about it? Sure, I worried about it but..

**Cardiff Garcia** There were a couple of other big events during your tenure as Fed chair. One of them was what happened with Latin America and more specifically Mexico.

At the time you thought that a possible default from the Mexican Government would pose a big threat to the US banking system. What was it that convinced you that the right course of action to take then was to allow the Mexican Government to pay off its debts over time, and to allow the banks to not have to write down the value of their loans? What made you think that that was the right course of action then?

**Paul Volcker** Because I didn't want an international financial crisis! This was in the middle of a recession with interest rates very high.

**Cardiff Garcia** '82, I believe.

**Paul Volcker** '82. It wasn't just Mexico.

Mexico was the spark in the end but all the big Latin American countries were in trouble, against this background...

You'd had this big increase in oil prices a few years earlier. The Middle East was flowing with dollars, they didn't know what to do with the dollars. They were deposited in the big international banks, mostly the American banks but the big Japanese banks, the big English banks too. And they didn't have any place to lend it, so they lent it to Latin America.

It went on for several years and banks got more and more exposed, and Latin America more and more exposed. But the banks were all legal lenders. (All these crises have something in common.)

Even small banks in the United States said, "If Citibank is lending, if Chase is lending, why don't I lend too, I'll get in this thing."

So they began lending. There was this famous story, which I think is true, that the leftist President of Mexico in the middle of -- would have been probably 1981 -- his finance minister went to him and the central bank [?] and said, "Look, we can't keep borrowing like this, we've got to slow it down, we're going to have a great crisis."

And he said, "Well, I don't know, you want to do anything?" [The president] sent some of his colleagues, including his son, I guess, around to ask bankers whether there was any problem here, were they frightened to lend to Mexico? All the banks said "No, no, no, we're perfectly happy, keep..." So he fired the finance minister!

Then the new [Mexican] finance minister came back and he was very closely in touch with us during the first half of '82. He kept telling us what was going on. We had our famous, or infamous, lemon meringue pie lunches.

**Cardiff Garcia** Lemon meringue pie lunches?

**Paul Volcker** Yes, I'd give them lunch at the Federal Reserve. I like lemon meringue pie. We had lemon meringue pie on Fridays.

But we kept in touch, we could see what was happening. But we didn't know what to do, and finally one bank stopped lending. One bank stopped lending, and they all stopped lending.

And so we lent them enough money, we thought, to get them through the summer. There was going to be a Presidential election. The new President would, in practice, become influential in September; that was the Mexican tradition, even though he wouldn't technically be in office for a few more months.

So the finance minister said, we've got to sweat it out until my friend, [Miguel] de la Madrid, becomes President; then we'll take stronger action. So we lent them the money to do that. But it didn't last so we had a crisis on our hands in August.

The plan that was developed with Mexico and others elsewhere -- at that point with international co-operation we got the European banks, Japan involved, the IMF involved -- we decided that the banks ought to not demand payment of Mexico.

You've got to understand: all those big banks had more lending to Latin America than their capital, way in excess of their capital. So it wasn't just Mexico. It was Argentina, Brazil, Venezuela -- I don't know about Venezuela -- Colombia, Ecuador. If Mexico blew, they were all going to blow, or that's what we assumed.

The Mexican finance minister and central banker were very good, responsible people.

**Cardiff Garcia** Good, responsible counterparts in this game?

**Paul Volcker** Yes. We worked out a little show and we invited... The difference is that we'd invite the major Mexican creditors into one room, because it was all banks in those [days]... There'd be 100 banks that were somewhat involved but there were really only 25 or so American and big

international banks that had a big stake. We invited them to a meeting at the Federal Reserve Bank of New York.

But it was run by the Mexicans. We deliberately stayed away.

His name was Jesus Silva Herzog -- he was the Mexican finance minister -- and he said, "Look I'm sorry but we're out of money. And I don't think it's in your interests... It's not in our interests to default, it's not in your interests that we default. What I suggest is that you continue to finance us to go over the existing debt and maybe provide some other assistances that may be needed, and we'll adopt a coherent programme with the new President (and so forth) to take care of you."

He said -- I wasn't at the meeting -- "Is that agreeable?"

Nobody said anything, and he said, "Thank you for your agreement. I suggest you appoint a group to negotiate the result."

And it was done. It was Bill Rhodes -- and I was in office sitting there -- he became the banker who negotiated this. And that pattern was then repeated in Argentina, Brazil, Ecuador, whatever, Philippines, Morocco, I think. The idea was to nurse them over until they could resume normal payments.

In the end it worked, but it became more and more tenuous as the years passed. And it wasn't until I was out of office and Nick Brady came along, and he developed the Brady Plan, which provided some relief.

The amount of actual financial relief it provided was limited. It provided certainty that they were going to get paid by transferring a lot of these debts into long-term securities, the par value of which was assured. The interest payments were not assured but the par value was assured, and it was stretched out over a longer period of time. And they either accepted a lower interest rate or they accepted a reduction in par value.

That changed the atmosphere, and off we were to the races. But it took six years or seven years of hand-holding to get through it.

And, by the way, the IMF played a big role. When they got involved they said, "Here's the adjustment you've got to go through, here's the amount of money you're going to be provided. I won't provide any IMF money until the banks provide money." That's the way it worked.

**Cardiff Garcia** That solution, and later on the bail-out by the FDIC of Continental Illinois, are sometimes characterised as a kind of trade-off that you had to face. At the time you wanted to continue driving inflation out of the system, but if you'd had a lot of financial instability it would have made it that much harder -- because of course if you're raising rates in an environment where the banking system's falling apart, you'd have additional problems. Do you agree with that characterisation, that this was a necessary trade-off?

**Paul Volcker** By that time the interest rates were coming down, but they were still relatively high and our job was not over.

What sent Continental off the tracks was they were much too aggressive lenders, and they had much too little capital, and they'd refused to... Today the regulators, including me, would have been more

aggressive. But in those days it was a question of what authority you had, and I wasn't aggressive enough with the regular... Continental was not even a Federal Reserve bank but they refused to raise capital, they refused to tighten up, and they got caught in the bankruptcy of this bank in Texas -- and Oklahoma, I guess -- Penn Square, I guess it's called.

[Penn Square] was making these huge oil loans. It was a small bank. And then it would park the loans, most importantly with Continental Illinois, but also with First Security (or whatever it was called) in Washington, Chase Manhattan Bank in New York. They were sprinkling bad oil loans all around the banking system!

And Continental Illinois finally got a run. And we decided, for better or worse, we tried to get the banks to save them without the FDIC having to, in effect, take it over. The banks wouldn't do it, at least enough of them wouldn't do it to make it feasible. So we finally stepped in and guaranteed its liquidity and the FDIC guaranteed its deposits, and the Government in effect took over the bank.

**Cardiff Garcia** One of the phrases that we heard a lot of after the most recent round of bank bail-outs was "moral hazard". Did that come up as you were discussing what to do about Continental Illinois?

**Paul Volcker** Yes, but I probably was not... We thought it was bad enough that a bank... I don't know whether it was a mistake or not but, unlike today, these banks had very few securities outside the banking system. The holding company didn't have many securities outside the banking system. Continental had a few. It wasn't very much, but the way the rescue was done, the bondholders got saved. And a lot of people were sad, [believing] *if it had been done differently it would have been better if those bondholders had lost.*

Actually, the way it worked out, Continental itself had paid off most of the bondholders. When they had enough money to pay, they were paying off bondholders. We would have been better off, as the Treasury claimed at the time, if the bondholders had taken a loss. Would have made the point more clearly -- if depositors didn't take a loss but the bondholders took a loss.

But in fact they didn't. So there was a complaint that we rescued too effectively. But who knows what would have happened if... They had most of their deposits uninsured. This was a big bank with big business deposits, this wasn't saving...

**Cardiff Garcia** Yes, they were above 100,000 [overtalking].

**Paul Volcker** Yes, the small depositors would have been saved anyway. And their depositors included a lot of other banks, so they were a big so-called correspondent bank where smaller banks kept their reserves with Continental Illinois.

So we did stabilise the situation. The stockholders lost. The bank was sort of restored to viability, but in the end it couldn't compete effectively.

**Cardiff Garcia** One last question about your time as Fed chair. In 1986 there was a famous vote where a majority of the board disagreed with you. And it was immediately cancelled, but by the next year you'd essentially decided the FOMC had a lot of Reagan appointees by then, and that you would resign. I guess I'm wondering if, under different circumstances, would you have wanted to have kept doing the job or were you done by then?

**Paul Volcker** I said this -- you can go back and read the Congressional testimony, when I got reappointed -- I said I didn't want to serve the full term. I think I put it more politely: "I do not feel bound to." This is a pact I made with my wife. She didn't like that we were down there in the first place, and she liked it even less...

**Cardiff Garcia** When you were reappointed.

**Paul Volcker** When I was going to be reappointed. She said I ought to resign then, so I said, "Look, I don't feel right leaving. If he wants to reappoint me, I don't feel right about saying no right in the middle of all of this. But I promise you I'll resign at a reasonable opportunity."

When they had this little revolt, which was a little power... I don't want to get into all that but...

**Cardiff Garcia** You don't want to get into it.

**Paul Volcker** Had a little vote. We spoiled my plan to resign, because how could I, in effect, force their resignation and then resign? It didn't make sense! We had...

**Cardiff Garcia** So you had to postpone your resignation for a little while longer.

**Paul Volcker** Had to postpone my resignation. By that time we had Irangate, and what sense did it make resigning six or nine months before my term was up? So I said, we'll wait until...

**Cardiff Garcia** So you'll just wait until it's over.

**Paul Volcker** Wait until my term was up.

**Cardiff Garcia** In the late 1970s and 1980s there was quite a lot of, I guess what you might call, deregulatory fervour in multiple sectors of the economy. Of course one of those sectors was in finance. When did you first start thinking that this could be a problem for future financial stability?

**Paul Volcker** I don't know when I began thinking [that]. But I was always, I guess, more worried about financial stability than most people, as indicated by Continental Illinois and other things. And then more importantly the Latin American...

People talk about the Great Crisis; it was a pretty big crisis in Latin America. We headed it off, so to speak, but it was. All the big banks' capital was at stake in that incident. The market's much more complicated and complex now.

But we had continuing dialogue with the Treasury then. And the Treasury kept wanting to liberalise, liberalise, liberalise. And they wanted to get rid of Glass Steagall. I'm not sure they were willing to take on Glass Steagall head-on but they wanted to liberalise. We kept negotiating with each other what the Federal Reserve would accept and what the Federal Reserve wouldn't accept.

And I can't quite remember what happened, whether it was overtaken by other events, but we had a sort of agreement in principle as to how far we would go in liberalising what bank holding companies could do.

It never turned into -- it would have been the responsibility of the Treasury to turn it into legislation -- but it never got turned into legislation. It was proposed by the Reagan administration, and I don't know why not.

It was not a perfect agreement down to the last sentence, but it was kind of an agreement in principle: *Okay, they could do some underwriting of bonds, they shouldn't underwrite stock, they could do insurance brokerage but not insurance business, they could do real estate brokerage but not real estate development.* There were things that we thought were dangerous and speculative. That's where we drew the line.

But anyhow, I don't think it ever got proposed, and I guess Reagan left and Baker was not interested; he had other things on his mind.

That's interesting: Baker came in, and the Baker Treasury was interested in stability and interest rates. He invented the Plaza Agreement and then later the Louvre Agreement, but they never had a chance to institutionalise it.

**Cardiff Garcia** You spent a good chunk of the next couple of decades afterwards warning against a lot of financial innovation. There's of course the famous line of yours that the only useful innovation was the ATM machine. In the aftermath...

**Paul Volcker** I said that because my mother used to... sorry, my wife used to say the automatic teller machine was so much more polite than the tellers that used to...

**Cardiff Garcia** The automated teller machines were better than, were more polite than, the human ones?

**Paul Volcker** Every time I go to the bank to cash a cheque they put down their wicket and say "It's lunchtime!"

**Cardiff Garcia** How about now? What do you think about financial stability now in the aftermath of the last crisis and Dodd-Frank, and of course the establishment of the Volcker Rule, and tougher capital standards. What do you think about the stability of the financial system these days?

**Paul Volcker** First of all the financial system is entirely different and more complex than it was in my day. If there was a Mexican crisis the creditors were banks -- 95 per cent or more of the creditors of Mexico were banks and it was relatively few banks then; big chunk. In those days, depending on how you measure it, the banking system was 70% of the financial markets. Now banks are 30 per cent. And you've got all these other trading activities going on, investment banks and others. The investment banks are now part of big banks, they're all together.

Derivatives: some forms of derivatives existed but credit default swaps did not exist. The interest rate, floating [to] fixed exchange rates [swaps], were invented, but it wasn't very much used. Money market funds didn't exist or they were very small. All these things really added enormous complications. The things you can do with computer power, which didn't exist back in those days helped make all this possible.

So you're dealing with a situation that's much more interdependent, much more complex than it used to be. So against that background, have we done enough? Dodd-Frank's done a lot to stabilise the

banking system but not everything. Because capital requirements and other things are obviously tougher.

What's been done outside the banking system is more problematical. And here you have a situation where: Who's in charge? We've got this FSOC now -- they can do something but they can find it very difficult to do anything effectively. Federal Reserve's formal authority does not extend very far. The SEC has some formal authority but they don't use it much, and it doesn't go so far.

So I think there're still a lot of problems in the non-banking area, if not in the commercial banking area, including things done within the bank holding companies.

It's a nice question you ask. This little foundation I have will shortly issue a new report about what remains to be done.

**Cardiff Garcia**      Oh, really? When is it coming out?

**Paul Volcker**      Soon, I hope. It's been sitting around for too long.

It's a very difficult area, that's why it sits around. We're not alone.

It's partly helped out by the technology -- it's easier to leverage things now than it used to be, and there's a proliferation of repurchase agreements. You always had repurchase agreements, but it was mostly overnight money and exchange for Treasury bills and Treasury notes. Now God knows what you have a repurchase agreement against -- against relatively illiquid securities for overnight settlement, overnight cash.

Lending securities is much more fashionable now than it was 20 years ago.

And all these things produce a lot of short-term debt with unknown and illiquid assets on the other side. So you have a very liquid liability which might be called upon any day, and an inability to deal with a run. You used to worry about runs on banks. Now you're worried about runs outside of the banks. And I don't think.... That's the heart of the problem that remains.

**Cardiff Garcia**      This is, I guess, a question about a more niche or smaller part of the financial sector. But the Volcker Rule came out a little more complicated than you'd hoped, but a lot of the proprietary trading desks have been closed down. Are you generally happy with the impact that it's had?

**Paul Volcker**      Well, I think it's had its basic effect. You're right, it's a lot more complicated... maybe it had to be, I don't know. That's the trouble with all regulation in the United States: we've got all these lawyers and bankers and regulators to some extent that want every conceivable possibility nailed down in particular language in the regulation or the law, and not much reliance upon judgement or authority of the supervisor.

I would have thought, particularly in this area -- bankers know what a proprietary trade is, and they know that a supervisor who's got any sense knows too -- it wouldn't require quite so many details. It's going to get complicated once you say that you can hedge against the risk, [and] then the question arises, *what's a good hedge and what's a bad hedge?* That does take some...

**Cardiff Garcia**      Some defining...

**Paul Volcker** So it's bound to be complicated. But I don't think it has to be nearly as complicated as it was. They left at the last minute a few loopholes for a certain amount of hedge funds and equity funds to be owned by the banks, but from the standpoint of the big banks it's pretty limited. In general I think the rule's effective, yeah.

**Cardiff Garcia** I want to ask you about monetary policy. You wrote in...

**Paul Volcker** I don't know anything about monetary policy. [Laughter]

**Cardiff Garcia** That's not true! [Laughter] You wrote something interesting in 2013. You said that the dual mandate of the Fed -- so its mandate to pursue both full employment and price stability -- was -- and this is a quote, "operationally confusing and ultimately illusory".

And then you go on and you write, "The basic responsibility of a central bank is to maintain reasonable price stability and by extension to concern itself with the stability of financial markets generally." It kind of sounds like...

**Paul Volcker** I've got nothing to add to those...

**Cardiff Garcia** It sounds like you think that the full employment part of the Fed's mandate is not helpful. Is that right?

**Paul Volcker** It's not helpful determined as something you balance off against price stability. My argument's very simple: the basic responsibility of the Federal Reserve or any central bank ought to be -- as a matter of simple morality and honesty -- ought to be to protect the value of the currency and worry about the stability of the market.

Doing that provides an environment in which you can take care of unemployment too. You're not going to prevent every business cycle, the ups and downs of the business cycle. But without a kind of basis of stability in the currency, I think you're making it much harder for yourself and for the rest of the government to deal with the employment side.

I think it's a little curiosity: there is that formulaic language in the so-called Humphrey Hawkins Act -- it's the last provision of the Act, I think -- it's the kind of thing you stick into any act: your responsibility is to serve all purposes as constructively as you can. It says, literally, end low interest rates. We have low interest rates now! That's not part of the... Those are words just as strong as the...

**Cardiff Garcia** The third part has "reasonable" interest rates or something like that, "moderate".

**Paul Volcker** What that bill was all about -- it was just before I became chairman -- but what the big fight was all about, what the bill was all about, was that's when they said, *The Federal Reserve has to be stricter on monetary aggregates, and setting out your goal for bank credit and the money supply, and conducting policy in that framework, and tell the Congress what you're doing.*

It was all about money supply and credit. If they want to be very religious about the law, they ought to be talking more about the money supply. They don't talk about it at all any more, basically.

Go back to your first question about changing the approach to monetary policy. I was perfectly consistent in a way with the philosophy of the Humphrey Hawkins bill, which talked about the importance not of -- well, they had that phrase about low interest rates -- but basically the framework of the law was *set out targets for the money supply and credit and stick to them, and report to the Congress why you're doing it that way.*

**Cardiff Garcia** What about some of the other, I guess, more innovative ideas that have come out of monetary policy since the crisis? The combination of quantitative easing, forward guidance, tinkering with the language to try to manage expectations of what monetary policy in the future would be and how it would react to changes in the economy. What's your basic view on some of these newer ideas?

**Paul Volcker** I think this business about forward guidance and all that stuff comes out of the economics classroom, and it's not very helpful. I think they've kind of discovered that themselves.

The inconvenience is if you projected something and it doesn't happen, it doesn't do the credibility of the institution all that much good, among other things -- and you end up confusing people when you talk too much about what you're going to do.

I think it's very important, and I resent it when people think that we were secretive -- I spent my whole time at the Federal Reserve being perfectly clear that our objective was price stability! Nobody should doubt that, and I didn't want a lot of discussion. That was the general purpose.

I don't think you can pin it down on a particular number. What the difference is -- the figure itself isn't accurate enough to say it should be 2% as opposed to 1% or 3% or 0%.

So long as you get it low enough, consistently enough -- as we have done -- that's good. I don't worry one bit that one measure of inflation is only 1.5%. "We've got to get it up to 2!" Why? Or some other measure is 1% and another measure's already over 2%.

The real world doesn't permit that degree of precision in statistics that are themselves faulty.

**Cardiff Garcia** Okay, we're running out of time so I've just got a couple more questions.

**Paul Volcker** We're running out of my real oratory here. You didn't go back to all those other things I did in the Treasury.

**Cardiff Garcia** All the other things you did at Treasury? What did we leave out? What do you want to emphasise here? What have we forgotten?

**Paul Volcker** It's routine now in the Treasury -- it gets no notice -- it auctions off its securities. Didn't use to. First auctioned off its securities when I was under-secretary of monetary affairs. It always auctioned off Treasury bills, but it did not auction off bonds and notes, which created some problems and...

**Cardiff Garcia** Wait, take us through it -- how did it issue the bonds and notes?

**Paul Volcker** Treasury has an offer; we invite you to bid for \$3 billion, or whatever it is, of treasury notes maturing on December 31<sup>st</sup> 2019 at 3 2/8 per cent, 3 1/4 per cent -- come and get them!

Which created the risk that nobody comes. It was awkward for monetary policy because they didn't want to change anything for a few weeks before or a few weeks after.

**Cardiff Garcia** If they weren't auctioned, how were they priced?

**Paul Volcker** They were priced out of your head.

**Cardiff Garcia** Out of your head? You had to calculate it in advance? Okay.

**Paul Volcker** Well, I mean you had to make a judgement. You knew what the market was. It was a way a private firm would underwrite Exxon bonds or AT&T bonds. You make a judgment about what the market is.

**Cardiff Garcia** What views of yours changed throughout your career in public life?

**Paul Volcker** Oh, I used to be a great inflationist.

**Cardiff Garcia** You used to be an inflationist? No way. I think you're pulling my leg on that one.

**Paul Volcker** I don't know. I just think things probably have gotten... They were simpler in my day.

They were certainly simpler in the technicalities of the financial market. You see what's going on today. I think the politics was similar too, certainly more constructive than what we've seen recently.

It makes it terribly difficult now with this polarisation, rather weird...

**Cardiff Garcia** You think polarisation's definitely gotten a lot worse than in your day?

**Paul Volcker** Oh, yes, no question.

**Cardiff Garcia** Had to be pretty bad under Nixon though, right?

**Paul Volcker** Yeah, but there was... Nixon had a problem. Nixon got almost impeached. He was forced to resign, but that was over Watergate, which was a crazy thing to do.

But -- I'm going by memory now -- there was quite a lot of constructive legislation. The whole venture into China: there wasn't that antagonism about international policy that there is now.

**Cardiff Garcia** There was less antagonism about international policy back then?

**Paul Volcker** That's right. I don't remember now... The Democrats didn't rise in wrath and say, "You're crazy going to China, you're destroying America", and so forth. The Vietnam War was a miserable thing but it was kind of a bipartisan misery.

**Cardiff Garcia** That does seem to be a strain that runs throughout your career, that you are an internationalist. Not just about exchange rates but just about taking into account more cosmopolitan concerns. Is that how you'd describe yourself?

**Paul Volcker** Yes, I certainly think we live in a world already... Look, I grew up in World War Two. After World War Two, I had my initial important responsibilities in the Treasury when the United States was the unquestioned leader of the world -- and we thought anyway that the future of the world depended on what the United States was doing. And that was kind of acknowledged wisdom, anyway.

And that's changed in a way that I think is unfortunate.

**Cardiff Garcia** You think the US should still be the guarantor of the global liberal order.

**Paul Volcker** Well, there's nobody else out there to pick it up. And that is more difficult now; it gets impossible. You have all this domestic friction.

[Back then] you had the trade legislation through different administrations. You had Nixon, I guess... Nixon took great pride at one point in the fact that social entitlement spending had gone up above other spending. I think it increased all other domestic spending, and he presented that as a great triumph, not... Don't have that any more.

**Cardiff Garcia** If there was one thing you could fix about the domestic US economy, would it be the deficit? Would that be the first thing, or would it be something else?

**Paul Volcker** I think the deficit's a big problem in the long run, it's not the problem for the moment.

Look, the tax system certainly is broken and that needs to be fixed. I would think maybe if you get agreement on it. You should be able to get agreement on it. I don't see that you can, given the present state of antagonism.

But you've got to change the corporate tax system. Not precisely the way that business wants it changed, in my opinion, but [still] in a way they ought to like.

You've got to fix the income tax system. It's got too many loopholes, and all the rest.

**Cardiff Garcia** Is that why you favour a consumption tax?

**Paul Volcker** Yeah. Well I didn't know you knew that, but that's right. If I had my druthers, but I was about to say it was too radical [to get passed], I would do a consumption tax.

I'd keep income taxes for the very rich people. I would have some kind of a consumption tax, yes. I think it's a more efficient and in the end more equitable kind of tax. The Republicans don't like it because they think it raises too much money. The Democrats don't like it because they think it hurts poor people. So that's why we're the only country in the world that doesn't do it.

**Cardiff Garcia** Any regrets in your career?

**Paul Volcker** Oh, God. I probably regret that I'm sitting here talking to you right now.

**Cardiff Garcia** I hope not!

- Paul Volcker** Yes, I'm sure there are some but I don't know.
- Cardiff Garcia** None come to mind.
- Paul Volcker** No, obviously there... I can see some mistakes. We had that whole business of credit controls.
- Cardiff Garcia** Credit controls?
- Paul Volcker** That I didn't like back then... See, that's good. You don't even think about them. Everybody's forgotten them. We had credit controls that we put on at Mr Carter's request.
- Cardiff Garcia** What were the controls?
- Paul Volcker** We didn't control much but they had a big psychological... We designed them not to control much, but people stopped spending for a few months because they thought it was unpatriotic to borrow money. And that's what gave us a little dip in the economy. It was this rather sharp dip but it wasn't long-lasting.
- Look, I'm sure... I don't want to reveal all my other secrets of all the mistakes I made. I should have... they're very few and I'm gonna keep 'em secret.
- Cardiff Garcia** What's next then? You mention that you have a report coming out. Are you going to be spending a lot of time now on governance or on other issues that you've been talking about?
- Paul Volcker** Yes, I'm spending all my time... I decided I would take my ill-gotten gains, modest as they may be compared to other people... By all means, God, you come and interview me for an hour, and you don't even know about the Volcker Alliance.
- Cardiff Garcia** No, of course we do.
- Paul Volcker** Of course you do? Well, you'd better describe it.
- Cardiff Garcia** What do you wish for the Volcker Alliance?
- Paul Volcker** I think not enough attention is paid the straightforward problems of public management. Public administration's even a bad word.
- That's part of the reason why we're in such a mess, and the lack confidence in government. Government makes too many ordinary mistakes.
- What are we doing with the latest, in Flint? Got the local government, the state government and the federal government all screwing it up together for something that it doesn't take a genius to solve or anticipate.
- Go back -- and this is bipartisan -- go back to Katrina. Republicans screwed up the administration of the Federal Emergency Management thing. What happened with the oil spill? We've got an agency that's supposed to be looking out for those kinds of things; where were they? They were asleep.

What about the introduction of Obamacare, which was technically screwed up? Whatever you think about Obamacare, it was not efficiently administered.

We published, one of our member groups, a report on I think 42 big administrative screw-ups since the year 2000. And some of them aren't very big but they get a lot of attention too. Like what do we do when our Secret Servicemen are running into the White House lawn and are visiting prostitutes in Bogota and stuff? Where's the discipline here? The discreet guard, the Secret Service.

But my motto... [In] the universities [it] has not been a popular subject. Strong universities, Kennedy School, Princeton, Berkeley, California, University of Southern California -- all have schools of what used to be called public administration, but it doesn't have the status that it should have. They want to talk about war and peace or poverty or something.

**Cardiff Garcia** It's not sexy enough, in other words.

**Paul Volcker** That's right, it's not. But my motto I picked up from Thomas Jefferson, which I attempt to repair. It's a lovely quotation. Vision, we've got lots of vision or used to have lots of vision in this country. "Vision without execution is hallucination."

**Cardiff Garcia** Vision without execution is hallucination? Thomas Jefferson?

**Paul Volcker** No, Thomas Edison.

**Cardiff Garcia** Thomas Edison.

**Paul Volcker** Yeah, the great inventor, the great visionary. But he knew that execution was the key to success, and I'm afraid we've forgotten that.

What do you do when 20% of the people, only 20% of the people according to survey after survey, have any confidence that the government will do the right thing most of the time?