## THOMAS PIKETTY LOOKS BACK ON THE SUCCESS OF CAPITAL IN THE 2ft CENTURY\*

**Arthur Goldhammer**: I'd like to begin by asking you to summarize the findings of your book *Capital in the 21<sup>st</sup> Century*, which has brought the phenomenon of inequality to the attention of a large global audience. In the past you've said that the book is not an individual work but the work of an *équipe*, so perhaps you'd like to begin by telling us something about your team of collaborators, how you put it together, and how the research that went into the book was done.

Thomas Piketty: Yes, I'd be happy to, but first let me say how glad I am to be here with Art. I think this book would not have been as successful as it has been without your help in particular. When I read my book in English, I can't believe I wrote it. Thanks to my contract with Harvard University Press and with you as translator, I knew from the beginning that although I was fortunate enough to be able to write in my own language, I would not be writing for the French public alone. I would be writing for an international audience. And so I conceived the book differently than I would have if I had been writing first for a French audience in the hope that someday it might be translated.

<sup>\*</sup> The following remarks are a lightly edited version of remarks made by Thomas Piketty at a colloquium at the American University of Paris in February 2016. He is interviewed by his American translator and *The Tocqueville Review* editorial board member Arthur Goldhammer.

I met Art at Harvard well before I began writing the book, and we had a very interesting discussion at dinner after the presentation. Art told me that he was translating one of Pierre Rosanvallon's books at the time, which I already knew from Pierre and others. So I was interested in whether you might possibly be interested in the project, and happily you were.

The book's publication has been an incredible experience for me. The immense success of the English edition had a huge impact on the book's reception in the rest of the world. Also, at the end of the day, I'm very proud that of the 2.4 million or so copies that have been printed world-wide, about 600,000 are in English, or one-quarter of the total.

One-quarter is a lot, but it also means that three-quarters of the world is reading the book in other languages, which is important to remember because sometimes people in the US tend to imagine that English is the only language. In the end, sales in Chinese, Japanese, French, German, and Portuguese are greater than in English.

**Arthur Goldhammer:** If I can interrupt for one moment. Your Japanese translator came to see me, and he confessed that he used my English translation.

**Thomas Piketty**: I was about to say that. I just made this same remark to a journalist from *Le Monde*. In fact, in Korea I was told that it would be difficult to find a good French/Korean translator and asked whether they could use the English version as the basis of the Korean translation. The English translation was so good that that I said, "Yes, please do use it, no problem. It's perfect, maybe better than the French version!"

So, yes, the English version played a huge role, not only because it was used as the basis of the translation into a number of other languages but also because the success in the US attracted much more attention than the book would otherwise have received. So the first person to whom this book really owes a lot is definitely Art.

Now, there's also another group of people who played an immense role, a very international team that collected the historical data I tried to present and integrate in the book. In 2001 I published a book on the history of income and wealth inequality in France called, "Les hauts revenus en France au XXe," which was never translated. Now it

will be, but at the time nobody wanted to translate it because it was 800 pages just on France, and this really was too much.

But this first book had the virtue of launching an international research project. I wrote a summary version in English, and Tony Atkinson from Britain, who reads French very well, started to do similar work on Britain, and I also began working with Emmanuel Saez on the US, as well as with Facundo Alveredo from Argentina and Abhijit Banerjee from India.

So it became a very international research project covering more than 30 countries, and our work has continued since the book's publication. One of the most interesting impacts of the book is that it led more governments and more tax administrations to open their fiscal archives and historical data than was the case before. Take Brazil, for example. Brazil is not properly covered in the book because we didn't have access to Brazilian tax records. But then journalists began asking the government why Brazil was not in the book, and eventually we got access to the tax data. Same for Mexico, same for Korea, same for Chile. So we are extending our work in many directions. We are also trying to get access in West Africa. So clearly, the book's success created pressure that induced more governments to open their archives.

Of course, data is not everything, because data is imperfect. It's always a social construct of some sort, which depends on institutions. Whether or not to adopt a certain kind of tax system or to allow public scrutiny of fiscal records depends on the outcome of a power struggle among institutional actors, who accept or reject a particular tax regime. But the book could never have been written without the data and without a large group of people to collect and analyze it.

**Arthur Goldhammer:** Would you like to say a word about what your research showed?

Thomas Piketty: For me, the most striking finding of the book is the level of inequality we found in pre-World War I Europe, especially France. Subsequently, the shocks induced by World War I, the Great Depression, World War II, and the new fiscal and social policies finally accepted by the elite reduced inequality after World War II. More recently, however, starting in the 1980s, the trend

toward lower inequality began to reverse for a number of reasons, including the conservative revolution in England and the United States, financial deregulation, and the fall of the Soviet Union. These and other political factors have, broadly speaking, changed the atmosphere and the ambient ideology.

Prior to World War I, however, there was apparently no tendency for wealth inequality to decrease. That was very striking to me. The French experience is particularly interesting, in my view, because France likes to present itself as a very egalitarian country, but the truth is that elite discourse is highly hypocritical when it comes to equality, in France and everywhere else. Elites can be very imaginative when it comes to justifying inequality.

France was in fact the last Western country to create an income tax, in the summer of 1914. The US adopted its income tax in 1913, before the war—it had nothing to do with the war. And Britain made its income tax progressive in 1908. Germany, Sweden, and Japan opted to tax income in the late 19th century. France was really the very last developed country to create an income tax. And it wasn't to pay for schools, it was to pay for war with Germany. Later, of course, the revenue would be used to pay for schools and to create a welfare state.

But what's interesting and to my mind also very depressing is that, at that time, the discourse of the French elite, the French republican elite, was to say, "Look, we made the French Revolution, that's enough. We don't need a progressive income tax. A progressive tax is very useful in an aristocratic country like Britain because they have strict class boundaries and extreme concentration of wealth, so they need progressive income and inheritance taxes, but we don't, because French society is egalitarian and we are a nation of small property owners."

The problem, of course, is that my data show that the concentration of wealth in Paris in 1914 was the same as in Britain. Aristocratic land holding had ceased to matter by then. Concentration of property meant concentration of business assets, real estate, and financial assets. Being a republic rather than a monarchy did not affect the process by which wealth became more concentrated.

This elite hypocrisy is important to bear in mind, and not only in the French case. It's easy to recognize that hypocrisy in retrospect, but of course there's a risk that we might be similarly hypocritical today without recognizing it. Financial globalization today is different than it was a century ago, and it is also justified differently.

Many things have changed over the past century. Let me mention the rise of Asia, Africa to some extent, and Latin America, the historical traumas of the 20th century, and the huge failure of communism. Former communist countries such as Russia and China have themselves become opponents of progressive taxation and wealth redistribution of any kind. In Asia today wealthy people from Taiwan or Japan or Korea want to die in Communist China because there is no inheritance tax there, whereas in Korea or Japan the tax on large estates is 50%.

The historical trauma of communism has thus had very strange ideological consequences. Attitudes toward inequality are therefore very different from 100 years ago, for this and many other reasons. These comparisons are important. So I think the most important finding of my book is that elites were hypocritical about inequality before World War I and we must bear in mind the possibility that they may be again today.

Arthur Goldhammer: Now for some questions from the audience.

Audience Member 1: Why do you choose a capital tax as your solution?

Thomas Piketty: At the end of my book I say that the purpose of capital taxation is not simply or even primarily to raise revenue. It's rather to generate information about the distribution of wealth so that government and citizens know what is happening. The ultimate goal is to limit on the concentration of power that comes from concentration of wealth.

There are different ways to do that. Public ownership is one way. In some cases I think it is still useful. Progressive taxation of private property is another way. It's a way to make private property temporary rather than permanent. Very wealthy people, billionaires, might be required to return to society two or three or five or ten percent of what they own every year. In the end, such taxation is a

way to say, "Look, you own this property but not forever. If you invest productively and earn a huge return on your capital, you will remain wealthy, but if you don't do anything but live off your accumulated wealth, you're going to have to return part of it to society." This would of course pose a substantial challenge to traditional notions of property.

In addition to public ownership and progressive taxation of private property, there are many conceivable forms of property intermediate between public and private ownership. This includes the non-profit sector of course, foundations and so on. It also includes new forms of participatory ownership such as crowdfunding, as well as new forms of governance and organization.

I don't deal with these issues sufficiently in my book, which is already very long, and in any case there are limits to my knowledge and what I am able to contribute. But I am very much aware that we need an entire new set of institutions and rules. Progressive taxation is only one of them. I make clear from the very introduction of my book that the main force to reduce inequality in the long-run is the diffusion of education and knowledge, not taxation. But taxation can be useful to pay for education.

Education plays quite a big part in the book, but new forms of organization and ownership and democratic governance and participatory government are not sufficiently covered. Although there is a chapter in the book where I compare German corporations with Anglo-Saxon corporations. There, the gap between the social value of capital and the market value of capital plays quite a big role. But more needs to be said about these topics. That's one of the limitations of the book.

Arthur Goldhammer: To follow up on this, if I may, an estate tax would be easier to implement than a tax on capital because it can be done within one country. A global tax on capital creates problems of competition among countries, a race to the bottom where capital, which is free to flow from one country to another, can escape national taxes. So unless all countries co-ordinate simultaneously, which is an insoluble political problem, you have this problem of a race to the bottom. That's the political problem.

For the economic problem it seems to me that an estate tax would answer your concern about the exponential growth of wealth over long periods of time. If you confine the accumulation of wealth to a single generation then the problem is reduced, if not eliminated. It's at least reduced because you don't have these great fortunes that continue one generation after another.

In the United States we see that there are fortunes that were accumulated at the country's inception that still exist today at the top of the wealth distribution. If you had a real, progressive estate tax it seems to me that would solve the problem. So why do you prefer this global wealth tax to the estate tax?

Thomas Piketty: Well, first, I think we need both, and second, the tax doesn't need to be global, there's a lot there's a lot that can be done at the national level. You say a big part of inequality will be reduced with an inheritance tax alone. Yes and no, because life is long—longer than ever before. When you make a fortune at the age of 30 or 40, or 25, does this mean that at the age of 90 you should still be sitting on \$50 billion, so that people have to come to you to ask how they should organize a health system in Africa? This is an important issue, but despite your interest in it, your knowledge is unfortunately limited, and your business experience is not germane.

Of course you feel entitled to give answers because it's in the nature of your position to feel entitled, but it's not at all clear that the best way to organize a public health care system in Africa is to rely on the preferences of a billionaire who made his fortune in computers. So you know, that's a problem, life is long, and people who have great ideas at the age of 30 or 40 may not still have the greatest ideas at the age of 90, especially in areas that have nothing to do with the area in which they made their fortunes. I think that's a serious concern, a very serious concern indeed.

Now from a practical, political viewpoint, let me make very clear that capital taxes have always existed and have proven to be more effective than inheritance taxes always and everywhere. And for good reason. In the real world capital taxes already exit, but they are usually called property taxes. The term came into common use at the time of the Atlantic Revolutions of the late 18th century. A new fiscal system was designed at that time, and it focused on land, because landed

wealth was the most important form of capital at that time. Wealth is still important, but today it's financial wealth that matters far more than landed wealth.

So the property taxes designed back then were based on real assets like land, real estate, and business equipment—real assets. This was the property tax system that was set up long ago in the US, France, and Britain. The problem is that these systems have not changed very much since then, but the nature of wealth *has* changed. Property taxes still exist and still generate a lot of revenue, a lot more than the estate tax, in both the US and France. And they also bring in a lot more than the progressive tax on net worth that I propose in my book.

In France, for example, the property tax is called *la taxe foncière*. It generates annual revenues of 25 billion euros, whereas the wealth tax, or *l'impôt sur la fortune*, brings in only around four billion, or one-sixth as much. So the big capital tax is the property tax. The problem is how to adapt these property tax systems that were created 200 years ago to the 21st century.

Existing property taxes also have certain peculiar features, which have become apparent since the financial collapse of 2008. For example, if you own a house in the US that's worth \$300,000, but you have a \$400,000 mortgage because the price of your house has gone down, so your net wealth is actually negative, you still keep paying the same property tax as someone who has no mortgage or even someone with a net worth \$2 million. This makes no sense. No logical reasoning, no economic theory, no political theory can justify this. It's like this simply because this is the way it was 200 years ago when there was no financial wealth. The system has not changed because financial institutions haven't wanted it to change.

But you can actually ask people what they think. For instance, there's a very interesting recent paper called, "Do Americans Want a Capital Tax?" And you ask people, okay, here are groups of households with different income and net wealth. How much should an individual with a net wealth of \$100,000 pay? Or \$1,000,000 or \$2,000,000. All told, including income tax, property tax. And you find that for most people it's common sense that for a given level of income, say \$100,000 per year or \$200,000 per year, the person with a net worth of \$10 million should pay more than the person with a net worth of \$2 million or \$1 million.

At least, when you ask the question to thousands of people online, nobody would say that someone who owns many houses around the country should be exempt from the property tax just because he has no income. Everybody will say, "Well look, if you have no income, do something with your property. Sell one of your houses to someone who will know what to do with it." So it's complete common sense that there should be both an income tax and capital tax.

Now, why is it that in practice this capital tax or property tax raises a lot more revenue than the inheritance tax? I think there are good reasons for this. Most people would rather pay 1% property tax each year, 1% of the value of the house each year for 30 years, rather than 30% at the time of inheritance. Maybe that's partly because of tax illusion because they don't realize they are paying the property tax, but I think it goes deeper than that.

There's also a very theoretical idea that we should prefer lump-sum taxation at the time of inheritance and let people do what they want in their life with their property. This is really an economist's idea, so I'm surprised that you accept it. It's very theoretical because in the real world there are lots of capital market imperfections which make this theoretical idea not such a great idea.

For instance, if you need to pay 30% of the value of the home that you inherit from your parents, how are you going to pay for that? Will you be able to borrow this sum and reimburse one percent per year during the next 30 years? You might have to sell the house, which would be unfortunate. So maybe paying 1% per year is better. Also you don't know how the market value and the rental value and the rate of return to your capital are going to change.

For example, if I had inherited an apartment worth 100, 000 euros in Paris in 1972, when I was one year old, nobody would have guessed that it would be worth five million euros today. So it would be been foolish to tax me on the basis of the inheritance at the time and then not tax me for the rest of my life. I think it makes a lot more sense to combine the two. You could have a small inheritance tax and then an annual wealth tax, depending on how the market value of the property and the rental income are changing.

So I think what I'm proposing is really common sense and to a large extent already exists, although the existing system will have to be adapted to the 21st century. As for the issue of global cooperation, of course it's better if you have more cooperation, but, you know, we can have property tax without cooperation. So I think the claim that, "Oh, global wealth tax, we can't do anything," is a little bit lazy. It's not really looking at the issue, which is that property taxes already exist, and we can revise them. So we should not use the lack of perfect global cooperation and a perfect global environment, which of course will never exist, as an excuse not to do what we can do.

**Arthur Goldhammer**: Well I'm older than you are and when you get old you get lazy.

**Thomas Piketty**: Oh no, this was not for you. I interpreted your question as you were repeating what some people—

Arthur Goldhammer: I'm playing a devil's advocate.

**Audience Member 2** – [Steven Sawyer]: You mentioned the question of how much tax, where most of the tax revenue comes from, and you also mentioned the Third Republic. But the way you describe your distribution is essentially financial or monetary. One of the arguments behind the Third Republic is that, first of all, you do have a massive fiscal revolution because they overhauled their system of indirect taxes. But they never dropped them.

So basically fiscal revenue from indirect taxes increased by between 40 and 45% between 1870 and 1873. What did they do with that money? They paid off the debt in two years, and they put it into schools, and then they financed the construction of the railroads.

These indirect taxes were obviously regressive, and this may have affected the distribution of wealth. But the revenue was used to build schools, and by 1895 France was the number one education provider in Europe, in the world, in terms of providing education to numbers of people. So is that something to consider, is that important, does it introduce—and of course we also know that the welfare state has always been largely financed by indirect taxes anyway. Is that something to consider?

Thomas Piketty: Yes, it's definitely part of what needs to be considered and part of what I try to consider. But the point is that

even if you include indirect tax and all forms of tax until World War I, we had a small government in France just like everywhere. Concretely, you had total tax revenue of 10% of national income until World War I in France, the US, Britain, Germany, Sweden, everywhere.

It's only after World War I, in the inter-war period, that you have an increase of total tax revenue toward 20, 30 and then in some countries 40 or 50%, at first because of the war and war-related spending, such as war pensions. In the turbulent interwar period you then saw increased social spending, and then after World War II you got the full-blown welfare state.

Then, in the 1980s, you saw a stabilization pretty much everywhere, which continues to this day, but at different levels, around 30% of national income for tax revenue in the US, 50% in Sweden, 40% in Germany and Britain, 45% in France. Everybody's in this range. But until World War I you are below 10% everywhere so, you know, there could be variation by 1870 to 1873 but in the end, in the decades prior to World War I, tax revenues are increasing at the same speed as national income.

Government spending is still increasing, because of course you have industrial growth, which gives you more resources to invest. If you have more factories, you can also have more roads. The general growth process includes growth of the public sphere, broadly speaking, in absolute amounts. But in relative amounts you don't see that. And in the concentration of wealth and assets you don't see that. And, if anything, you have rising, slightly rising concentration until World War I.

But of course, the country is developing and the broadening access to education is part of the growth process and modernization process. And not only in France. Sweden was more advanced in terms of educational achievements than France at the time, Germany also to some extent, some parts of Germany, but I'm not an expert on this.

**Arthur Goldhammer:** Your book has attracted an enormous amount of praise but also a certain amount of criticism. And I wonder which of the criticisms of your book you find most pertinent? I'll just mention three, and I don't know whether they'll be the three that you

consider important or not. One is that you have no theory of 'r'. You have this famous inequality, 'r' greater than 'g', but all your evidence about 'r' is based on empirical, historical data and so there's no reason to believe that 'r' should be at any particular level in the future.

The second criticism is related to that. It has to do with the elasticity of substitution between capital and labor. And you might want to explain, for the sake of the audience, what that means. But Larry Summers, for one, who in general praised your book, said that your arguments about the elasticity of substitution being greater than one, on which the future of 'r' depends, is not really sustained by the available empirical studies. And then the third area of criticism has to do with the composition of capital. There are some, like Matt Rognlie at MIT, who argues that the increase in wealth and equality since 1980 is based mainly on the increase in real estate values, and not on productive assets. And he believes that that's a fundamental critique of your argument. Do you agree with that? Or is there some other criticism that you find most pertinent? Handle the question any way you want to.

Thomas Piketty: Well, okay, so I think there has been lots of interesting discussion, critiques. To be honest, the three you've chosen, to which I'll respond, all come from economists, and as I think you know, the problem with economists sometimes is not only that they don't write books, it's also that they don't read books. So this creates problems because at some point, you know, my book was so successful people wanted to write about it even without opening it.

First, the question of 'r'. In fact, there is a series of r's, so it's complicated. If it was simple, if everything could be summarized with an elasticity of substitution, the book would not be 800 pages long, it would be short. And maybe it could have been shorter, but I don't think it could have been 10 pages long. And the stories that Rognlie and Summers want to write are stories that are one page long, or three slides, which is nice, but this is not the story I'm telling because I think the world is complicated.

I think the more interesting critiques come from social scientists outside economics, who read books more carefully, generally speaking. For example, there was a special issue of the review Annales Histoire et Sciences Sociales, where there are many critiques, many people disagree, but I think the critiques are deeper and more

interesting than the ones from economists, generally speaking. The British Journal of Sociology also had a special issue.

So there have been many discussions of the book outside economics that I find more interesting. I will say a few words about those three critiques you mentioned, but to me the most interesting and most important general critique is that my book is definitely too much centered on the Western experience. It's partly due to data availability but it's more than that.

So it's partly due to the fact that I was not able to access historical data for China, for Africa, for South America, at least until recently, so this makes me concentrate a lot on Western Europe, North America, and Japan. But it's more than a question of data availability. It's also that, as I was saying, the book is very much written as a reflection about the 20th century dynamics of inequality in Europe with the huge shocks caused by the two World Wars, the Bolshevik Revolution and the pressure put by the Communist model on the Western elite in the post-World War II decade, and the fall of the Soviet Union at the end of the period, which to some extent brought us back to a new regime of unlimited faith in self-regulating markets.

So this is really a book about the shocks of the 20th century viewed from a European viewpoint. And from the viewpoint of India, from the viewpoint of South Africa, from the viewpoint of Brazil, you know, the history looks very different. Because these shocks are important for them because they are embedded into the world systems, the colonial systems, etc., but this is not a book about them basically.

So the book is limited in this respect. The good news is that it will not be my last book. I hope to work more on other parts of the world and think more. I've been to India several times recently. With Abhijit Banerjee I've been working on Indian data for some time now, and I'm trying to think more about the inequality regimes in other parts of the world. But that's clearly the most important limitation of the book; it has been criticized for that and I think for good reason.

Now the other critiques you mentioned: Yes, there's no theory of the rate of return to capital. Or rather, I think there is a theory but it's a complicated theory because at the same time you have the usual story

of declining return to capital. So if you accumulate more capital and your capital income ratio goes up, the rate of return may decline or it may stabilize.

If the capital/income ratio stabilizes at a high level, the rate of return does not have to go to zero. Scarcity of capital is part of what determines 'r', but clearly this is not enough. Bargaining power also matters, as does the legal system, which determines the balance of power between the workers and owners of capital. This is very important.

Thus, there are many institutional factors that determine the return on capital. I tried to show how the capital share of income changed over the course of the 19th and 20th century, and I found political factors in the broad sense of the term are extremely important. In the case of France, for example, the labor share increases hugely after 1968, but after 1993 it goes in the opposite direction.

So when you want to explain the dynamics of the capital share and the rate of return, political and institutional factors are at least as important as the supply and demand laws that economists prefer to look at. And my answer about the elasticity of substitution is more or less the same. I don't think that you can predict the future rate of return to capital simply by looking at the elasticity of substitution of a well-behaved, one sector production function.

I use this language at one point in the book in order to show that even if you accept that framework, there's no reason to conclude that the capital/income ratio cannot continue to rise. If in the future you have new uses for capital, robots that can replace human labor, say, then the elasticity of substitution could be a bit bigger than one. It doesn't need to be infinity but just a bit larger than one to make a big difference.

But I'm not saying that this is what has been happening so far. Maybe this will be important 30 years from now, but at this stage the rise in the capital share is mostly due not to not robots but to traditional capital-intensive sectors like energy and housing. So the Rognlie point, in my view, was the stupidest of all. He is just using our database on housing and saying, look, housing is important.

Well of course, this is our database, we completely agree about the fact that housing is important. And he wrote an entire paper saying

just that housing is important. Really, what can I say? I agree. In my 2014 paper with Gabriel Zucman we give the full decomposition of wealth accumulation in all countries into what we call volume effect and price effect.

And the price effect is mostly this housing price effect and we show that in a number of countries it's actually more than 100% of the rise in wealth accumulation rate, but that's not particularly good news. That's not particularly good news because it means that for the new generation who don't have family wealth and who only have their labor income if they want to access property in Paris or London, they will need to earn quite a lot from their labor.

So, yes, housing prices are a big part of the story. So what? Does this mean that everything is fine? To me this is an additional reason to be concerned about inequality dynamics and the need to adapt the tax system and legal system to the situation. So, frankly, I don't see the point of this critique.

**Audience Member 3** – [Olivier Zunz]: Can I ask a question though? When the problems of the economy are discussed, we talk about many things other than the tax system. Why do you think that reforming the tax system will get at the roots of the problems with today's economy? I think there's no easy answer to the question, but I just wanted to hear you think more broadly about the nature of our economic difficulties.

**Thomas Piketty**: Yes, you're perfectly right, there are many problems other than taxes. I don't think I'm saying that tax is the key to everything. When I talk about the rise of the social state and the fiscal state, I try to make it clear that the two evolve together.

So tax is a big part of the state formation process, and it's important not for its own sake but for what it means for the state formation process more generally. And for the development of the modern social state. And I also try to make clear that the legal system is incredibly important when it comes to reducing inequality, increasing equality, and regulating the economy.

Think of financial deregulation, privatization, patent law, and rent control. These are aspects of the legal system that I talk about in the book at some length. I think maybe even more than I talk about

taxation. These things are a very big part of the overall story of inequality. The thing about taxation is that it's very difficult to have a quiet discussion about it. People get excited very fast. So when they see one page about taxation or a high tax rate, whatever, they focus on that and nothing else. But I think there is a lot more in the book and certainly there's a lot more in the story of inequality.

**Audience Member 4**: I've only read a little bit of your book, the first third or a quarter, but I have a question about the importance of monetary policy in the big rise in inequality we've seen since 1980.

Thomas Piketty: I don't think that monetary policy is the main driving force in the increase in capital and asset values, at least in the long run. I think there are other forces that have to do with changes in the legal system that favor private owners of wealth: the end of rent controls, financial deregulation, stock market reform. I would also include demographic factors with the explosion of population growth and more accumulation of assets.

Now, that being said, monetary policy can have enormous impact over a period of five to ten years, and right now, certainly, monetary policy is playing an enormous role. But I guess it depends on the timescale you are looking at. If you want to explain the fact that in every developed country between 1970 and 2015 you have a huge rise of the wealth-income ratio, I think this is true irrespective of the short run or even medium run evolution between the 70s, 80s, 90s, today.

But, again, we've probably been asking too much of monetary policy in recent years. And of course it's much easier to print billions of dollars or euros than to fix the tax system, because for that you need a parliament and you need people to agree in the parliament, which is difficult. You need people to agree outside the parliament also, which is even more difficult. Whereas monetary policy is simple: you can create billions of dollars and euros in one day.

But the problem is you don't really know what you do with that money. You put it somewhere and, indeed, you can contribute to the bubbles and rising asset prices for certain assets in particular areas of the economy or particular countries. The people who benefit from this are not necessarily the people you would like to benefit from public policy. So I fully agree with you: that's a big concern, especially now.

## Arthur Goldhammer: Alan Kahan.

**Audience Member 5** – [Alan Kahan]: You suggested just now, and many other people have suggested, that spreading education has been an enormous force in reducing inequality. What if we have topped out in our ability to spread education, at least to the developed world? That is to say, there's a sharply declining marginal return on increased investment in education, that it was cheap and easy to teach 98% of the population to read and write, and apparently impossible to teach 25% to engage in critical thinking.

Thomas Piketty: That would be sad, but I'm not sure we are there yet. Let me say that the spread of education, it's not so much that it has reduced inequality but at least it has prevented inequality from rising enormously. So it's not that the inequality of labor earnings today is not less than a hundred years ago. In some countries, such as the US, it has probably become higher than it has ever been. But in most countries it is maybe comparable today with what it was a hundred years ago. But without the education expansion it would be a lot higher today.

So if the bottom half or bottom 90% of the population had remained at the same skill level as 100 years ago and only the top 10% had increased their education levels, then inequality would be enormous. And to some extent this growing gap in educational investment between the bottom half in the US and the top 10 or 1% in the US, is I think a primary explanation for rising inequality in the US, and stronger rising inequality in the US than in Europe or Japan.

But I think it could be different. It's clear there are very different educational models. I'm always impressed in the French debate, we talk about university, we look at the tuition regime in the US or in Britain and we say, we don't have tuition, maybe we should have more, and you know, maybe we could have a little more, but at the same time we don't look so much at other countries like Germany or Sweden where they have zero tuition, less than in France.

In Bavaria there was a referendum two years ago where they voted, there was an introduction of a 200 euro tuition for universities, and they voted it down. And it's not a particularly left wing territory but

there was a majority to say, no, 200 euros per year, that's too much, that's a break in equal access to education, let's put it back to zero.

And it's the same in Sweden, and I think in the end that's part of the reason why there's less of an increase of inequality in Sweden or Germany than in the US. So there are very different—you know, there are different ideologies and different policies in the globalized world, so you can have similar technological evolution but still very different outcomes in different countries.

Arthur Goldhammer: This answer brings us to politics in the everyday sense and my journalist friends have mandated me to ask you several questions about politics. First of all your mention of resistance to tuition payments brings up the Bernie Sanders campaign in the United States. He's proposing free tuition for all students. And several journalists have asked me to put to you the question, in the Democratic primary race in the United States, are you supporting Bernie Sanders or Hillary Clinton? And you don't have to answer if you don't want to.

Thomas Piketty: No, look, of course I support Bernie Sanders with no hesitation. Also, I don't have the right to vote there so I cannot. But I think it's really very impressive that he's doing so well. And I think, you know, look, maybe he's not going to win, but what he shows, at the very least, is that maybe a younger Bernie Sanders and a less white Bernie Sanders could have won, and maybe will win another time. And not only win the primary but also the general election, because given where the Republican party is going, you know, I think he will win the election and then there will be a major shift in the political regime and public policy of the US.

So this makes me full of hope and this confirms the fact that it's very difficult to predict the future. And people who believe that nothing will ever change and that the Reagan policy regime is with us forever. You know, it's easier with Clinton and Obama, Democrats, but it's not with us forever. It will change.

**Arthur Goldhammer**: And here in France you've been multiplying your interventions every day since I've been here. I've seen your name in the newspapers on one petition or another. I know you've been asked the question before. Do you intend to become involved directly in politics yourself, and you've answered firmly, no?

Thomas Piketty: No, I am involved in politics in the public debate but, no, not as a candidate. But look, there are many different ways to be involved in politics. And I'm not sure, you know, the people who are candidates and people who are in office are the ones who are doing the most politics. Because when you see the political discourse of many political leaders, most of the time it's very vague and when they say something precise it's only when it has become the dominant consensus and the dominant opinion.

So in the end, who is the slave of whom, I don't know. But I believe in the power of ideas and books, and I want to keep writing books, that's for sure. But in the case of the French election, I think we need party primaries now that we have a new political regime in which the extreme right is capturing a third of the vote, the same as or even more than the mainstream parties of the right and left. Nobody could have imagined that the extreme right would do more than 40% in certain regions until last December, so I think already in 2002 the lack of a primary election between left wing candidates was a major mistake.

And I can say that as someone who voted for Christiane Taubira at the time, I felt a bit ashamed, the night of the first round in 2002, because I contributed to the fact that the left was not in the second round and that La Pen beat Jospin in the first round. So already at the time it was a mistake not to have a primary election between left wing candidates.

But now that the National Front has 30% rather than 15% of the voters, it's not a mistake, it's criminal. And especially now, with Hollande's low approval rating. The very least he can do is to agree to go through the process. He doesn't have to have 100 debates in little villages, he just has to do two or three TV debates, October, November, at the same time as the right wing candidates, and if he's the best candidate for the left he will win. And I think this is his only chance for re-election.

So it would be a big mistake to have no primary on the left this year, which is where things stand right now. It won't be good for anyone if Hollande delays the announcement of his candidacy until just before the election. It's certainly not good strategically for Hollande, and it will surely lead to a political catastrophe next May.

**Arthur Goldhammer**: I think we have time for one more question from the audience.

**Audience Member 6**: I've been looking at the International Monetary Fund and one of the things that is so striking about it is that many applied economists there talk about the economy as a technical sphere, like medicine.

One thing that I thought was so useful in your book is that you say that's simply not true, it's not a technical question, it's a political question. We need to bring all of the social sciences and humanities to bear, and even the novels of Balzac. Economic questions pertain to all of us. On the other hand you don't actually engage much with the existing social science literature on inequality, and one of the big gaps within the economics literature is of course gender. If you were to address gender issues, how would that change the kind of argument that you make?

**Thomas Piketty**: You're right, and that's again one of the many limitations of the book. I recognize it. Gender is not entirely absent. If you look, for example, at the importance of demographics and immigration in countries like Germany and Japan, I make clear that the real issue behind the scenes is gender inequality.

You know, if you assign women to a role that they don't want after they have children, they will react by not having children, and the population will fall. As I argue in my book, this has huge consequences for the dynamics of wealth accumulation and inheritance. But of course there are many other dimensions to gender than this, family and fertility dimensions, which I do not address in my book.

In any case, I'm in the process of escaping from economists. You have to leave me more time. I hope the next book will be more satisfactory from this standpoint. For now, I've said where I want to go, but I'm not there yet.

**Arthur Goldhammer**: Well, I think that's a good note to end on. I hope we've aided you with your escape from economics. And we want to thank you very much for agreeing to talk with us today.