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From Economic Theory to Economic Reality : Personal Perspectives

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From Economic Theory to Economic Reality : Personal Perspectives

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Abstract This note is concerned with the question of why and how my research interest has been changed from economic theory to economic reality. Although it is fundamentally a personal perspective, it is expected to have historical implications as well, thus serving as a good guide toward the new horizon of integrated social science. When I started my research life, the people were involved in the "Cold War" between the capitalist bloc and the socialist bloc. In 1968, to escape from the Japanese university disturbance, I applied for the graduate program at the University of Rochester, with Professor Lionel W. McKenzie being a towering figure. While I took care of the math econ sequence at the University of Pittsburgh, I began to have a feeling of doubt about the practical applicability of general equilibrium theory a la McKenzie. Partly being motivated by a suggestion from Professor Oscar Morgenstern, who came to Pittsburgh for an academic lecture, I began to shift my research area from pure and abstract theories to more practical and applied subjects including the economics of uncertainty. In 1989, all of a sudden, the seemingly invincible Berlin Wall turned down, being followed by the collapse of the mighty Soviet Union. In the dreadful year of 2008, the world economies was involved in the most serious crisis since the Great Depression on the 1930s. When the World Congress of Regional Economic Association took place in Tokyo, I gladly joined the Japan Section and later served as Council Member and even the President. Since then I have formed everlasting friendship with many researchers around the world, including Hirotada Kohno as Professor Warm Heart, Yoshiro Higano as Professor Good Will, Peter Nijkamp as Professor Flying Intellectual, and many others. At present, we are living in the "New Age of Uncertainty," hoping for the coming of the second Keynes and/or the second Knight. Thomas Piketty's new book on economic inequality would possibly lead to the promotion of an integrated social science in the new century.

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1　The "Cold War" on the academic front：　a strange start

I was born in the pre-World War Ⅱ period. Since so many people have been born after the war, I sometimes feel as if I belonged to rare species. During those long years, the people saw a series of extraordinary things such as atomic bombing in Hitroshima and Nagasaki (1945), the rise of People's Republic of China (1949), the Cuba crisis between the capitalist bloc and the socialist bloc (1962), the Russian spaceship Sputnik over the earth (1964), the first man on the moon by American space project (1969), and the frequent occurrence of violent student movements (1968-1969). Those events, which happened between 1940 and 1970, were more or less the products of the so-called Cold War between the two powerful blocs. [1)]

I would like to add that another sort of cold war took place on the academic front as well. In this connection, it is recalled that Seishi Kaya, the chairman of the Japan Science Council, once remarked in a newspaper:

> On reflection it is really ridiculous that mankind cannot live on this globe peacefully with each other when they possess the knowledge and knowhow even of making a round-up trip to the moon. The most important thing from now on seems to be to join our efforts in making the time nearer when we can all visit the moon as friendly tourist, instead of being involved in the clash between communism and capitalism. (Kaya, 1957)

Kaya was then a famous natural scientist, also serving as the President of Tokyo University. Reading Kaya's article, Shigeto Tsuru, a noted economist with a Ph.D. degree from Harvard University, did not agree with Kaya and made the following counterargument:

> The distinction between capitalism and socialism as a social system is not due to emotional antagonism of politicians or to doctrinaire rigidity of academic people. Dr. Kaya's wish for a harmonious world is everybody's wish; but he should be aware that there does exist here a scientific problem of differentiating different social systems by an objective criterion and that the difference between them cannot be wished away. (Tsuru, 1961, pp. 2-3)

The difference of opinions between Kaya and Tsuru was quite clear-cut and seemed to be almost irreconcilable. Speaking of myself, I was then an eager econ-major student, thus being inclined to side with Tsuru rather than Kaya. [2)]

In my student days in the 1960s, there existed two popular yet opposing textbooks in economics. They were nicknamed the "red text" and the "blue text." In hindsight, this was a strange start for my student life. The red text was well-represented by the U.S.S.R. Academy Economic Institute (1958) *Economic Textbook the third revised version* [Japanese translation, 1959], which was no doubt the most authoritative test of the Soviet socialist bloc. The issue of "socialism versus capitalism" constituted the central theme of the red text. The coauthors of the text took pride in reaching the following conclusion:

> We have thus far discussed the whole processes of economic development of a society. As a result, we have reached the most important conclusion that from a historical viewpoint, capitalism is destined to collapse whereas socialism is marching for its final victory over capitalism. There should be no other way! We are so confident of such historical inevitability..
>
> (U.S.S.R. Econ Institute, Japan ed. (1959), p. 1050)

In contrast to the powerful red text, the blue text, presumably being regarded as a strong rival, seemed to be rather modest and even hesitant. To take an instance, Paul A. Samuelson (1955, 7th edition 1967) wrote the world-popular textbook *Economics*, a typical blue text defending the American capitalist bloc. Samuelson modestly argued:

> America leads Russia, but will the gap narrow? (Samuelson, 7th edition 1967, p. 791)

Comparing those two texts, I was clearly more impressed by the powerful red text than the moderate blue text. After some hesitation, however, I decided to go to the United States so that I could continue my graduate study without unduly political and psychological interruptions. I just wanted to get out of the Japanese university disturbance in the 1960s, thus daring to jump into the very core of the capitalist economy. [3)]

2 The mathematical beauty of general equilibrium theory: Lionel W. McKenzie as Professor Fixed Point

In the 1960s, Japanese universities were so noisy and turbulent that they became no longer good places for study and research. So, I intended to apply for admission of graduate schools at American universities. Very fortunately, in 1968, I was admitted to the Graduate School of Economics, the University of Rochester.

There was a very prominent professor at the Rochester economics faculty, who played a leading role for establishing the outstanding graduate program in economics. The name of that famous professor was Lionel W. McKenzie. He was one of those pioneers who together with Kenneth Arrow and Gerard Debreu succeeded in introducing advanced mathematics such as differential topology into economics. One of his favorable mathematical tools was the Fixed Point Theorem, which was first established by great mathematicians including L.E.J. Brouwer and Shizuo Kakutani. So, it would be quite natural to see that McKenzie was nicknamed by many graduate students "Professor Fixed Point." The way in which McKenzie taught general equilibrium theory at Rochester was legendary. Every time, he distributed to a selected group of graduate students his handwritten manuscripts, which contained a lot of mathematical symbols and complicated equations. As could easily be guessed, the symbols and equations were rather loosely written and sometimes almost incomprehensible. There was something dignified in his teaching; making use of large blackboards in a classroom, he always wrote so many definitions and axioms before proceeding to prove a series of mathematical propositions. All the students seemed to be just quiet, taking great pains in making their lecture notes faithfully. [4)]

Professor McKenzie seemed to be very fond of mathematics; indeed, he was a passionate researcher in the application of differential topology to economic science. It is true that he almost always controlled his class authoritatively. No person should be perfect, however. There was an occasion when he was a bit nervous in mathematical derivations and pondered for some time while grasping a piece of white chalk in this right hand. Whenever his right hand got up and approached to his face, the color of his lips gradually changed from reddish to whitish: he forgot the inescapable reality that the white chalk happened to touched his lips. Occasionally, he spoke the names of several Japanese economists in heavy (or rather correct) English accents, "Morry-see-ma" (meaning Michio Morishima), "Woo-za-were" (Hirofumi Uzawa), "Knee-kai-dow" (Fukukane Nikaido), and "Nay-gee-see" (Takeshi Negishi). Yes, they must be Japanese names, but sounded to me like American names.

I still remember the occasion when McKenzie did not feel well and unfortunately got struck in a mathematical jungle. This incident happened exactly when he was about to finish the proof of general market equilibrium solution. He knew that the necessary mathematical tool was no less than the powerful Fixed Point Theorem. Then he stopped walking and began to fold his arms, holding a piece of white chalk with his right hand. After five minutes or so, his cheek suddenly got more brighter than ever before and nodded his head to himself, "I've got it!" And after completing the existence

proof successfully, he convincingly yet rather quietly muttered with the following sigh: "Oh, it's so beautiful !" I should add that it was only faintly heard to me: I was lucky enough to set on the front row. [5)]

Unquestionably, McKenzie's lecture on general equilibrium theory was mathematically so beautiful that it greatly impressed all the students in his class. Although his inclination toward mathematical beauty occasionally seemed too much to me, I nevertheless had to finish my thesis (1972) *Axiomatic Foundations of Consumption and Production Theories* within a limited time. The thesis contained four chapters. Chapter One aimed to introduce a brand-new Regularity Condition under which the Weak and Strong Axioms of Revealed Preference are just equivalent. while Chapter Two discussed a New Theory of Revealed Favorability as the price-income counterpart of the Traditional Theory of Revealed Preference a la Paul A. M. Samuelson. Chapters Three and Four turned to a revealed preference approach to the Classical Theory of Cost and Production a la John Hicks. I succeeded in decomposing the total effect of a factor price change on the production of another factor into the Substitution Effect and the Scale Effect. Fortunately, all the four chapters were published in international journals and widely quoted.

3 The practical charm of the economics of uncertainty: A useful advice from Oscar Morgenstern

After receiving a Ph.D. degree in economics from the University of Rochester, I was lucky enough to get a teaching job at the University of Pittsburgh. At Pittsburgh, I was asked to take care of the mathematical economics sequence for both undergraduate and graduate students. General equilibrium theory constituted the core of "math econ," an abbreviation of mathematical economics, which used to be regarded with reverence as a top-quality item by many economists. [6)]

One day, a female student from Turkey asked me a very pointed question like this:

> Dr. Sakai, I am so impressed by the way you taught us general equilibrium theory. We have enjoyed by seeing the power and beauty of Kakutani's fixed point theorem, a mathematical tool to show the existence of competitive equilibrium. As you may know well, sir, I am not from well-advanced countries like the U.S. and Japan, but alas, from a less advanced country. I wonder whether and to what extent your general equilibrium lecture is applicable to the betterment of my home country. Please let me know. (A Turkey student, Pittsburgh, 1972.)

This question gave me a shock, sounding like a thunder out of blue. The questioner was a bright and beautiful female student from an agricultural country, who had been very attentive to my graduate course. It seemed that she wisely hit the mark. I myself was then a professor lecturing her. So, I took pains in hiding my true feeling before her, barely making the following answer:

> Oh, this sounds a very clever question. My home country, Japan, is not so advanced as the United States either. As a matter of fact, there exist dual structures in Japan, namely, advanced and backward sectors. So, I am not in a good position to strongly believe that the general equilibrium stuff can straightforwardly be applied to my home country. Well, all the students, I would like to say this! Now let us study together to carefully examine the applicability of pure theory to more complicated economies as they really are. (Y. Sakai, Pittsburgh, 1972)

After several years of my stay at Pittsburgh, I found myself casting a somewhat skeptical eye upon the authoritative theory of general equilibrium. I vividly remember my exciting meeting with Oscar Morgenstern, a famous pioneer of the theory of games, who happened to come to Pittsburgh in 1973 to give us a general lecture on the history of economic theories. Being among the enthusiastic audience to listen to his lecture, I took a courage to ask a rather pointed question to him:

> Professor Morgenstern, I have been so impressed by your instructive lecture today. To tell the truth, however, I am not so happy about the present state of economic science. It seems that there exists a big gap between the abstract assumptions of theory and the harsh facts in reality. In order to fill in the gap, I would strongly feel the necessity to establish a new approach to socio-economic problems today. If you have some suggestions in this direction, please let me know.
>
> (Y. Sakai, Pittsburgh, 1973.)

Morgenstern at first appeared to be perplexed a bit, but soon composed himself. Then he kindly began to answer my question:

> Oh, Mr. Sakai, you look still young and have a lot of potential. I can tell you that fortunately, there now appears a new wave of economic thinking, that is the economics of uncertainty promoted by a group of young economists like you. Why don't you join the group right away?
>
> (Morgenstern, Pittsburgh, 1973.)

The keyword "uncertainty" sounded to me like a sort of revelation or "Sermon on

the Mount." What is uncertainty all about? Since then, I shifted all my energy into an investigation of uncertainty although I had already read several articles by George Akerlof, Michael Spence, and Joseph Stiglitz. Surely, there were all my contemporaries, so that I hopefully could join the "promising club of uncertainty." [7]

In hindsight, when I was a graduate student at Rochester, my research was never alien to the economics of risk and uncertainty. For one thing, Professors Edward Zabel and James Friedman jointly opened the graduate course "theory of uncertainty and games," in which I myself was a very attentive student. For another, Richard Thaler, one of my friends at Rochester and much later a Nobel prize winner, enthusiastically advised me to take a variety of courses including "econometric history " and "applied economics." To my regret, however, I did not give careful attention to the importance of applied fields, so that I was just content to focus on pure theory of general equilibrium.

Following Morgenstern's advice aforementioned, I decided to read again Akerlof's paper (1970) on uncertainty, and this time I found myself greatly shocked in a psychological sense.

> We have been discussing economic models in which "trust" is important. Informal unwritten guarantees are preconditions for trade and production. Where these guarantees are indefinite, business will suffer — as indicated by our Gresham's law. This aspect of uncertainty has been explored by game theorists, as in the Prisoner's Dilemma, but usually it has not been incorporated in the more traditional Arrow-Debreu approach to uncertainty. But the difficulty of distinguishing good quality from bad is inherent in the business world; this may indeed explain many economic institutions and may in fact be one of the more important aspects of uncertainty.
>
> (Akerlof, 1970, pp. 15-16.)

As was stated by Akerlof, the issue of uncertainty was not incorporated in the traditional theory of general equilibrium. In fact, Professor McKenzie never seriously discussed the problem of uncertainty within the his framework of general equilibrium. On reflection, it would be safe to say that Akerlof's paper of 1970 served very well as a good springboard by which I could shift my research area from general equilibrium theory to the economics of uncertainty. I would like to add that all the results on axiomatic foundations of consumption and production theories were fortunately published in world-circulating journals such as *International Economic Review* and *Journal of Economic Theory.* In hindsight, I could say that a drastic change in my daily life from Rochester to Pittsburgh represented a more dramatic transformation in my academic life.

4　Immortal Souls in Iron City：　Dr. and Mrs. Maeshiro

When I got a academic offer from The University of Pittsburgh, not a few American friends advised me not to go to Pittsburgh, once a smoky and polluted industry city.　In spite of those seemingly good advices, however, I decided to take the offer from Pittsburgh.　There are several reasons for my determination for this.　First, in the 1970s, Iron City was no longer a dirty smoky city associated with the U.S. steel company , but then became famous of a number of academic and cultural institutions, with two towering universities forming their cores.　The University of Pittsburgh, nicknamed just Pitts, has a spacious and lively campus, on which a literally towering tower, named The Cathedral of Learning, stands tall and high.　A copy of music scores I personally bought at The Stephan Foster Memorial, an annex of Pitts, still remains one of my personal treasures.　The Carnegie Institute of Technology may be compared with The Massachusetts Institute of Technology in the East, or The California Institute of Technology in the West.

While my wife Toko and I stayed in Pittsburgh, we got so many friends and acquaintances, among whom Dr. and Mrs. Asatoshi Maeshiro were the very kind persons who would help us whenever help was needed.　A little late, I know, but we would like to say that we are so grateful to Dr. and Mrs. Maeshiro for great help and kindness.　In Pittsburgh, Totuko and I could spend a happy life, and made so many valued friends including Jerry and Nancy Wells, Arnold and Betty Katz, Gene and Kathy Gruver, Jack and Emily Ocks, Henry and Mary Chao.

5　The new age of uncertainty:　The return of old masters

History sometimes does something cruel.　As the real history told us, a sequence of so many incredible things and events happened beyond all expectations.　No persons on the earth should be perfect and almighty.　According to Taleb (2007), the world is full of the "black swans," or the random events that are nearly impossible to predict in advance.

Against the wildest expectations of almost everyone, the seemingly invincible Berlin Wall turned down all of a sudden in 1989, being followed by the total collapse of the mighty Soviet Union into so many independent countries in 1991.

The Wall has collapsed completely!　It's just gone!　You'll see that we can now come and go

so freely in Berlin!　(People of Berlin, 1993.)

This was the lively conversation I could hear here and there when I was invited as a guest speaker at the Berlin international conference in 1993.　Strangely enough, it reminded me of my young days when the issue of "socialism versus capitalism" was a lively discussion topic among fellow students.　At the same time, I wondered if the collapse of one social system would sooner or later lead to the decline and even breakdown of its rival.　As the saying goes, power will collapse, and absolute power will collapse absolutely !

In the dreadful year of 2008, the world economy was involved in the most serious crisis since the Great Depression of the 1930s.　Share prices plunged throughout the world; in particular, the USA lost 33.8 % of its value in that single year.　The seemingly strong Lehman brothers collapsed, being followed by the total breakdown of Yamaichi security company in Japan.　Even some economists liked to call the financial crisis of 2008 the Great Recession, named after the famous Great Depression.

The Queen Elizabeth of the United Kingdom used to have a large portion of her huge wealth in the form of stocks and securities.　All of a sudden, the Great Recession took place hitting the wealth of the British monarchy very harshly: The personal of the Queen's fortune was then estimated to have fallen £25 million in the 2008 credit crunch. This was really an intolerable shock to the Queen!　In 2008, at the opening of a new building at the London School of Economics, the Queen uncharacteristically asked the following brief yet sharp question to the audience, including Professor Luis Garicano, then the director of research at the LSE:

If these things were so large, how come everyone missed it?　(Queen Elizabeth 2008.)

Professor Gricano apparently got off-guard, thus defending himself by telling the Queen:

In every stage, someone was relying on somebody else and everyone thought they were doing the right thing.　(Gricano, LSE, 2008.)

This episode seemed to be summed up as the simple sentence, "Sorry Maa'm, we just didn't see it coming."　More academically, I would rather like to say that we now live in the "Second Age of Uncertainty," named after the catchy word of the "(First) Age of Uncertainty" by John K. Galbraith (1977).　In this connection, Posner (2009)

eloquently remarked in a rather long sentence:

> I also emphasize some points that have received relatively little coverage in other accounts: the depression's political dimensions, the disappointing performance of the economics profession in regard to anticipating and providing guidance to responding to the depression, how ideology can distort economic policy, the inherent limitations of depression economics, how the self-interested decisions of rational businessmen and consumers can give rise to a depression (so there is no need to look for psychological explanations), and how the failure of officials and economists to anticipate the financial crisis and prevent its ripening into a depression echoes the failure of other officials and other professionals to anticipate and prevent other catastrophic events, like the Pearl Harbor or 9/11 attacks or the devastation of New Orleans by Hurricane Katrina. (Posner 2009, Preface, pp. xiv - xv.)

Perhaps, I would not need to add to Posner's eloquent remark. I just want to confirm here the disappointing performance of the economics profession as an anticipating guidance to the Great Recession of 2008. Surely, it may echo the Queen Elizabeth's pointed question on the credit crunch of 2008: "why did nobody notice it?"

Many people might simply believe that the collapse of the Soviet Union in 1991 means the fundamental failure of socialism. The crisis of 2008, however, teaches us that the capitalist victory would not be so clear. A failure, if not the failure, of capitalism should also be a very fashionable topic again in the academia. In short, we are now living in the New Age of Uncertainty in which the rivalry between capitalism and socialism, or more exactly, the one between Market or Control, is still alive in many ways. We look forward to the return of the old masters including J.M. Keynes (1921, 1936) and F.H. Knight (1921, 1935). Of course, we should not simply imitate the old teachings, nor merely apply them to new realities. Simple imitation and hasty application do not seem to work here! We must do something else; we must rather go beyond those old masters in a variety ways toward the new horizon of integrated social science. [8)]

While both Keynes (1921) and Knight (1921) were great books on probability and uncertainty, and published in the same year, it was a surprising fact that they did not like each other's writings. Keynes(1921) was a nicely written yet difficult book containing one strange-looking diagram and many puzzling equations. I found that the key to understand Keynes's concept of probability was solemnly lying in the following romantic, Byron-like verse.

O False and treacherous Probability,
Enemy of truth, and friend to wickednesse;
With whose bleare eyes Opinion learns to see,
Truth's feeble party here, and barennesse. (Keynes 1921, p.466.)

According to the young Keynes, the notion of probability was double-edged, having dual meanings: In fact, it was truth's feeble party and friend to barrenness.

While Keynes's theory of probability looked like a high peak which waited its turn to be conquered by a well-trained climber, I thought that I should be the right person, looking for a guiding route for the determined climber to follow. Fortunately, Keynes himself draw a very charming chart, which was actually the only one figure in his probability paper (1921). According to Keynes, in Fig. 1, Y is "more probable than" W, which is in turn is "more probable than" V, but X and Y are "non-comparable." By making use of the concept of "interval probability" in stead of "point probability," I succeeded in solving the long-standing enigma of Keynes's charming chart of probability.

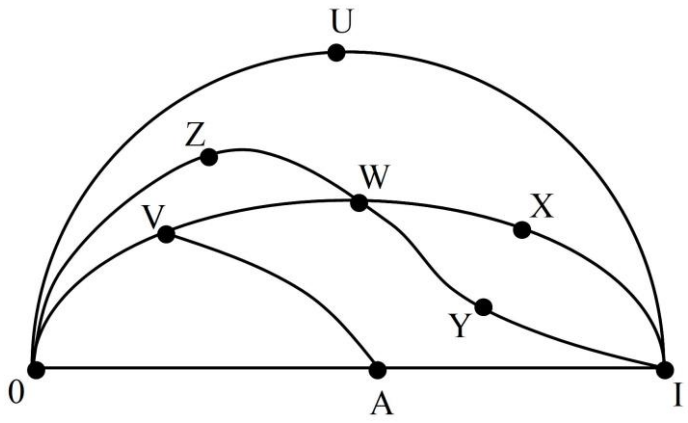

Fig. 1 Keynes's charming chart of probability

Speaking of myself, I recently published the two books on Keynes and Knight, namely Sakai (2015) and Sakai (2019). Fortunately, the first Japanese version was highly evaluated by Takashi Negishi, a noted economist. I sincerely hope that the second English version will also properly be appreciated all over the world..

6 Regional Science Connection: Many professors with warm heart and good will

The World Conference of Regional Science Association took place in Tokyo in1995. Then, I was working with the University of Tsukuba, north of Tokyo, which offered me a good opportunity for doing research in Theory and Applications. As the saying goes, however, the lovely rose has its thorns. Although the natural surroundings were, and still remain, very good, I have to confess that the "human surroundings" were rather disappointing to me. As the saying goes, however, I believe that adversity is the parent of virtue.

Early in the 1990s, I was persuaded by Professor Yasuo Oishi, who was a respected founder of the Japanese Regional Science Association, to join this honorable association. When I gladly decided to do so, I found myself surrounded by many generous professors including Hirotada Kono as Professor Warm Heart and Yoshiro Higano as Professor Good Will. Besides, I got acquainted with so many foreign scholars such as Professors Peter Nijkamp, Lay Gibson, Peter Batey, Geoffrey J. D, Hewings, Jacques Poot, and many others.

Around this time, my research interest was significantly broadened to study new topics such as the role of merchant in the market economy and the interdependence between Economic Theory and Economic History.

I would like to mention that more than fifty books of the English Series *New Frontiers in Regional Science: Asian Perspectives* have been successfully published by Springer Nature Singapore. Professor Higano, as Editor-in-Chief, has constantly outstanding contributions to the promotion of regional science not only in the Asia-Pacific area but also in the European and American areas. Professors Yasuhiro Sakai and Makoto Tawada have played in supportive roles in cooperation with Senior Editor Yutaka Hirachi.

Quite recently, as one of those series, Yasuhiro Sakai and Keisuke Sasaki (2021) published the new book titled *Information and distribution: the role of merchants in the market economy under uncertainty.* The basic reason for this book was inspired by the question how and why the Japanese merchants and the Western merchants have dealt with risk and insurance differently. In Japan, the traditional name of "Ohmi merchants" and the principle of *sampo-yoshi* or three-way advantage have been famous in Japan: the trade must be must be advantageous not only for sellers and buyers but also for the society as a whole. According to Eiichiro Ogura (1980), a leading authority on Ohmi merchants, those devoted merchants must be designated "the National

Cultural Asset" of Japan.. In spite of the high prestige of Ohmi merchants in Japan, it is quite unfortunate that they have rarely been heard and written outside Japan. Correcting such non-symmetric treatment between the East and the West was one of the motivations of writing the new book.

It is great honor and pleasure for me to say that Masamichi Kawano, Karina Kourtit, Peter Nijkamph, and Yoshiro Higano jointly edited an important memorial book for my behalf, *Theory and History: Essays in Honor of Professor Yasuhiro Sakai* , Springer in 2022. Probably, it could represent a landmark in my academic career. I am so glad I lived long enough for this. I will remember forever that a close cooperation between generous gentleman Higano and helpful editor Yutaka Hirachi have played a key role in accomplishing such a grand project. And above all, it would be no exaggeration to say that Hirotada Kono, Professor Emeritus, University od Tsukuba, has long served as a powerful locomotive for pushing Japan Regional Economic Association up to a very honorable world status. As the saying goes, although only one arrow may easily be broken, more than three arrows will never be broken.

7 *Hikone Kohsho* 100 years on： The story of father and son

Believe or not, 2023 is the very special year for Shiga University. Historically speaking, *Hikone Kohsho*, the predecessor of the Faculty of Economics, Shiga University, was established exactly one hundred years ago, namely in 1923.

Hikone Kohsho is the abbreviation of Hikone Higher Commercial School, or in short, the one of Hikone Junior College. Privately speaking, Yoshijiro Iwasa, my father-in-law, was successfully admitted into *Hikone Kohsho*, and graduated from it in 1927, thus becoming a honorable member of *Sho-Shi Kai,* or the class of Showa 4th year. Since Showa 4th year in Japanese calendar was no more than the dreadful year of 1929 , Yoshijiro had hard time to get his job at Otsuka Commercial Company, later moving to Toyota Commercial Company. It is quite fortunate for him that young Risaburo Toyota and young Taizo Ishida, both the future presidents of Toyota Corporation, were then living at the house just next door in Seribashi, Hikone.

I am a native son on Osaka, but perhaps against the expectation of my parents, I applied for Kobe University rather than Osaka University or Kyoto University. Because of a series of unexpected accidents, I got married to Tokuko, a daughter of Yoshijiro Yuwasa, and after many twists and turns undescribable here, eventually settled down at the very old house in Seribashi, Hikone. To my great surprise, the

house just next door , now a part of parking lot, used to be Kodama-san and the birth place of Risaburo Kodama, who later became an adopted son as Risaburo Toyota, became the president of Toyota Corporation. Taizo Ishida, famous as "Uncrowned Bog Boss of Toyota", also lived at the Kodama house, and received a generous financial support from the Kodama family (See Ikeda (1971)). Besides, Akio Toyota, the present president of Toyota, is no less than the grandson of Risaburo Toyota. It is in this sense that Seribashi, Hikone, can rightly be regarded as a "Birthplace of Toyota Corporation." Very fortunately, I got an academic job as Professor of Shiga University, and later became Professor Emeritus of Shiga University in addition to Professor Emeritus of the University of Tsukuba, thus contributing in many ways to the development of Shiga University along with my late father -in- law Yoshijiro Iwasa. [9)]

Like Shiga University, the predecessor of my own alma mater, namely Kobe University, was one of famous Higher Commercial Schools before the Second World War . Mr. Roy Smith, a native son of Ohio, has been a English teacher there for 70 long years. I still remember his favorite joke as follows:

> *Kobe Kohsho,* or Kobe Higher Commercial School, used to be a extremely difficult school for entrance examination. So many students were under strong pressure from exams. So, *Kobe Kohsho* was rightly nicknamed as "Kobe Hairuno Kommate-rassharu School," sounding like "Kobe Higher Commercial School." (Roy Smith, Kobe Univ., 1970.)

While I was so intensively studied economic theory and mathematics at Kobe University, I found that no school lectures were more impressive than the following talk by Manager King Konosuke Matsushita:

> We can learn so many lessons from real business. They are really important wisdoms, whose unlimited power may go beyond the scope of learning from schools. A lot of government officers and university professors may have a tendency to say "uselessness of merchants" or "intermediary exploitation." I myself does not support such a superficial view. (Matsushita 1974, p. 126.)

In my student days, this really hit me like a bolt from the blue. Since then, Matsushita's advice has been constantly remembered by me for those 60 years. In real world, intermediary merchants play a key role transmitting goods, services and information between sellers and buyers. We can learn useful lessons from the real world.

8 No clear goals in sight: "Econs" versus "Humans"

In the light of the history of economic theory, it seems that there has existed the academic struggle between "Econs" and "Humans." According to Richard H. Thaler (2015), a respected representative of our Rochester graduates, many standard models tend to use a fictional creature called home economics, or simply Econs. Econs are regarded as "rational fools" a la Amartia Sen (1987) in the sense that they rationally choose goods by optimizing their utilities and have always rational expectations about market equilibriums. Although the traditional expected utility model is an extension of the standard rational model to the world of risk and uncertainty, its fundamental structure remains the same as before.

In contrast, Humans are just human beings, namely homo sapiens. Compared with fictional Econs, Humans do a lot of misbehaving, implying that economic models lead to a lot of bad predictions. Humans are supposed to have a lot of non-rational feelings such as envy, optimism, pessimism, sympathy, compassion, and the like. In the world where many Humans live, the traditional economic theory is far from satisfactory. We need to establish a more comprehensive model of human behavior including a variety of complicated psychologies. Besides, in contrast to Econs who are abstract and homogeneous entities independent of any historical and cultural constraints, Humans tend to behave as ordinary persons in the street, thus being always affected by their historical and cultural backgrounds. If homogeneity, uniformity and rationality are keywords to describe Econs, then heterogeneity, diversity and non-rationality constitute the basic characteristics of Humans.

It is recalled that Albert Einstein (1879-1955), the probably the greatest scientist of the twentieth century, once talked about his own philosophy of science:

> I have little patience with scientists who take a board of wood, look for its thinnest part, and drill a great number of holes where drilling is easy. (Einstein, quoted by Phillip Frank 1949.

In the real world, we are exposed to various temptations for easy-going lives. Ao, it would be a sad fact that we have a tendency to drill a great number of holes on a board of wood in which drilling is rather easy. However, We have to take a very broad view of the wood without looking at only small trees. Let me make it plain again. We are really Humans rather than Econs!

I strongly hope that this paper on "From Economic Theory to Economic History:

Personal perspectives would serve as a helpful guide to a newly integrated theory of risk and uncertainty that should be built on the basis of J.M. Keynes and F.H. Knight. I am sure that we can learn new lessons from a set of old teachings. We are living in the New Age of Uncertainty. Unfortunately, however, there are no clear goals are in sight. The simple return of the old masters would be no help. Probably, we need a new Keynes and/or a new Knight.

In this connection, I would like to recall the reader that the year of 2021 is a very memorial year for the economics of risk and uncertainty. Exactly one hundred years ago, the following two great books by the old masters were published.

John Maynard Keynes (1921) *A treatise on probability*. Macmillan, London
Frank K. Knight (1821) *Risk, uncertainty and profit*. University of Chicago Press

In order to commemorate thus memorial year, it is quite fortunate to publish my own book on Keynes and Knight as follows:

Yasuhiro Sakai (2019) J.M. Keynes versus F.H. Knight: *Risk*, *probability*, *and uncertainty*. Springer Nature Singapore

Recently, French economist Thomas Piketty (2013) has published a highly esciting book, first written in French and the immediately translated into English. It deals with the dynamics of wealth and income inequality covering a long span of the last 200 years. Piketty persuasively argues that we are now on the way back to the old-fashioned capitalism, in which the wealth and income inequality are widening again and thus social and economic instabilities are also increasing. Since its publication there have been many pros and cons for the book. Paul Krugman (2014), a nobel prize winner in economic science, praised it very highly:

> It seems safe to say that Capital in the Twenty-First Century, the magnum opus of the French economist Thomas Piketty, will be the most important economics of the year — and maybe the decade. (Krugman, 2014.)

We are not quite certain whether and to what extent Krugman's appraisal of Piketty is correct. If we think of the happenings of big unexpected events such as Lehman shock of 2008 and Fukushima nuclear disaster f 2011, however, we must eagerly hope for the coming of new economic science. Piketty's new and ambitious

analysis will perhaps be one of the most important books for many years to come.

In short, we have to go on and beyond Keynes and Knight. We need to wait for the second Piketty. On my long academic career in Japan or the United States, I myself have made so many difficult decisions: The tough questions to ask have always been as follows: Choose either the "easy asphalt road" or the "difficult sandy beach path." Late Japanese writer Shusaku Endo (2021) preferred the second path to the first one. I myself seem to be mentally more akin to Endo, so that I had to go on so many hard paths to walk.

Life is a challenge! As the saying goes, where there is a will, there is a way. Quite recently, Sakai has been asked by Mr. Yutaka Hirachi, Senior Editor of Springer Japan, to write the new book *Games*, *Decisions*, *and Markets.* Certainly, this should be another challenge to my humble career in the 21st century.

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Footnotes

1) The Cold War and its academic impact were extensively discussed in Chapter 1 of Sakai (2009).

2) Shigeto Tsuru (1912-2006) was a Harvard educated economist and later became the President of Hitotsubashi University, thus influencing in many ways in the post-World War Ⅱ period.

3) To the best of my recollection, in the 1950s and the 1960s, the red text was more popular than the blue text among Japanese students.　In contrast, in the same period , the blue text was dominating and the red text non-existent among American students.

4) See Arrow & Debreu (1954), Debreu (1959), McKenzie (1954, 1955, 1969),　Morishima (1964), Negishi (1960), Nikaido (1970), and Uzawa (1962).

5) For the fixed point theorems of Brouwer and Kakutani, see Brouwer (1910) and Kakutani (1941). Kakutani served as a research assistant to von Neumann, who together with Oscar Morgenstern wrote von Neumann & Morgenstern (1944), an epoch-making book on game theory.　Also see Hirota (2004)..

6) In retrospect, McKenzie's lecture looked like a solemn ritual based on the Kant's philosophy of "truth, good and beauty." At Pittsburgh in the early 1970s, my lecture was also influenced by McKenzie, my mentor. For further details, see Sakai (1972) and Chapter 5 of Sakai (2019).

7) For my work on the economics of uncertainty, see Sakai (1982) and many others. Although I was then writing its English version as well, I could not finish it.

8) The crash of 2008 and its historical implications were also discussed by Soros (2008), Krugman (2008) and others. Also See Keynes (1921), Keynes (1936), and Knight (1921). The similarity and difference between Keynes and Knight were systematically discussed by Sakai (2016, 2019) .

9) For Akio Toyota, the "new challenger" of Toyota Corporation, and related topics, see Katayama (2022). I think that the close connection between Toyota and Hikone is worthy of close investigation. Incidentally, as I mentioned above, Toyota Big Boss Taizo Ishida, once lived at the Kodama house, Seribashi, Hikone. Both Yoshijiro Iwasa, my father-in-law, and Toshio Iwasa, my brother-in-law, also worked for Toyota Corporation.