R.K.Talwar Memorial Lecture 10th 2019

**Beyond Risk:
Policy making for
an Uncertain World**

by

Mr. Sanjeev Sanyal
Principal Economic Adviser and Co-chair of G20's
Framework Working Group
Ministry of Finance
Government of India

On

Friday 22nd November, 2019

at 4.30 p.m.

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About Shri Raj Kumar Talwar

Shri Raj Kumar Talwar, born in 1922, joined the Imperial Bank of India at Lahore in November 1943 as probationary assistant, immediately after taking his M. A. degree in Mathematics from Lahore University. He had an outstanding career in the Bank. He was Superintendent of Branches and Superintendent of Advances in the Bengal Circle of the State Bank of India and Inspector of Branches under Central Office. In 1961, he was appointed Deputy Secretary and Treasurer in the Bengal Circle. A year later, he moved to the Madras Circle in the same capacity. He became the first Secretary and Treasurer of the Hyderabad Circle when it was created in1965. In January1966, Shri Talwar was appointed as Secretary and Treasurer of the Bombay Circle.

On 1st February, 1968 when he was appointed as one of the two Managing Directors of the State Bank, he became the youngest to adorn that office.

A new chapter in the banking industry began with professional bankers taking positions as bank chiefs when Shri Talwar became Chairman of the State Bank of India on 1st March 1969.The youngest Chairman ever, he gave a sense of direction and a new orientation to the Bank as never before. Besides expanding the Bank's business manifold by extending its reach, his missionary zeal saw the State Bank take several initiatives in the areas of innovative banking, rehabilitation of sick industries, credit plans for rural development, etc. He ensured simplification of procedures for financing of small-scale industries and launched new schemes for the benefit of smaller enterprises, small businessmen and agriculturists. He also put in place systems to ensure proper end-use of bank funds besides comprehensive analysis of corporate balance sheet much before the Reserve Bank of India prescribed norms for credit analysis of large advances. It was again his rare vision and foresight that initiated the first ever organizational restructuring exercise of the State Bank in 1971, which withstood the test of time for well over four decades.

A highly principled banker, Shri Talwar was known for his values, integrity, dynamism and professionalism. All through his career, he gave his best to nurture a culture of openness, frankness and transparency in the Bank and bitterly opposed arbitrary decisions. A man of exceptional attributes and indomitable spirit, with an abiding faith in the grace of the Divine and honesty and integrity as his guideposts, Shri Talwar commanded respect both within and outside the Bank. To him, principles dear to his heart were above all else and never was he ready to compromise with them. When he left the Bank on 3rd August 1976, he was only 54. By then, hailed as one of the country's most distinguished bankers, Shri Talwar had galvanized the Bank by his vision, dynamism and dedication. His was undoubtedly the golden era of the State Bank.

He decided to settle in Pondicherry but his connections with the corporate world did not cease as he served on boards of companies and headed the Industrial Development Bank of India for a couple of years in the late 1970s. He was by then more focused on spiritual matters. He lived a spartan life and was often seen moving around the town of Pondicherry on a bicycle. Shri Talwar breathed his last on 23rd April 2002 at the age of 80.

Shri Talwar's name is closely linked with the issue of customer service as he was the Chairman of the Committee on Customer Service(1975). Today, whenever customer service related issues are discussed and debated, the far reaching recommendations made by the Talwar Committee are often quoted.

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Beyond Risk: Policy making for an Uncertain World[1]

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Ladies and Gentleman, it is an honor to deliver the R. K. Talwar Memorial Lecture. The late Raj Kumar Talwar is one of the most distinguished bankers in the history of Independent India. He was born in 1922 and joined the Imperial Bank of India in Lahore in November 1943 as a Probationary Assistant. He would rise through the ranks to head the institution, now known as State Bank of India, in 1969.

As the Chairman of State Bank of India, he managed India's largest bank during particularly turbulent times. I am sure he would have thought a great deal about the issues that I am about to highlight in this lecture. In particular, he would have wondered about the problem of navigating through the fluid uncertainty of a world buffeted by unpredictable shocks, unintended consequences, butterfly effects and unknowable interlinkages. Note that this is about how to deal with "unknown unknowns" and "known unknowables". As we shall see, this is quite different from the problem of dealing with known or quantifiable risks. As economist Frank Knight famously put it: "Uncertainty must be taken in a sense radically distinct from the familiar notion of Risk, from which it has never been properly separated." This lecture is about how policies and regulations for dealing with Uncertainty

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are fundamentally different from those required for dealing with Risk.

The issue of dealing with financial sector vulnerabilities has long been a central theme in economic policymaking. The "panics", bank failures and financial crises of the 19th and 20th century led to the evolution of key institutions such as central banks as well as a large body of regulations and policies meant to avert and mitigate the impact of financial system breakdowns. Although central banks, finance ministries and international organizations did learn from each other, most of the regulatory and policy frameworks were national till the nineteen-eighties.

In 1988, an internationally accepted framework was adopted that demanded some minimum standards to be met by banks (instead of the patchwork of national regulatory frameworks). Now known as Basel I, it introduced the concept of regulatory capital that is aligned to a bank's balance sheet - Capital to Risk Weighted Assets Ratio (CRAR). This approach was further enhanced by Basel II norms introduced in 2004 that demanded greater granulation of risks faced by a bank's balance-sheet. Capital charges were made for credit risk, market risk and operational risk. However, the Global Financial Crisis of 2007-08 exposed the inadequacies of the approach. In response, a new and more demanding set of norms were adopted in 2010. Known as Basel III, most of these capital requirements have been implemented in phases in India since April 2013.

Basel III norms did not merely introduce more stringent quality and quantity requirements for regulatory capital, it made several innovations. For instance, it introduced an additional layer of common equity – the capital conservation buffer – as well as introduced a leverage ratio that required banks to have a minimum level of loss-absorbing capital relative to all of the banks' assets irrespective of risk weighting. Another innovation was to take into account system-wide risks. Known as "macroprudential norms”, Basel III imposed additional requirements on systemically important banks as well as a counter-cyclical capital buffer that is meant to balance out credit cycles (although the exact working of this approach is yet to be tested).

It is fair to say that the roll out of the Basel III norms have led to a more systematic approach to risk-taking by banks internationally and have forced them to become better capitalized. In India, the roll out of the Basel III norms since 2013, in a phased manner, coincided with the introduction of the Insolvency and Bankruptcy Code in 2016 as well as the imposition of much more stringent asset quality recognition. While these changes did cause disruptions in the wider economy, the Indian banking system is arguably healthier today than it was at the beginning of the decade.

This audience will be familiar with the story thus far but I am now going to wade into trickier issues. It may not be obvious, but the general philosophical basis of the Basel approach is that risks faced by banks are generally known or at least quantifiable. This is why it prescriptively assigns risk weights to classes of assets. As pointed by Anat Admati and Martin Hellwig (2015), “the system of risk weights we currently have has more to do with politics and tradition than with science.” For instance, home country sovereign debt enjoys zero risk-weight but the Greek default of 2012 demonstrated clearly the flaw in this thinking. Even when Basel III allows for external assessment of risk, it presumes that it is only a matter of encouraging credit analysts in rating agencies to work out the probability of default. The belief is that it is mostly a matter of adequately incentivized rating agencies to delve ever deeper into balance-sheets and create even more elaborate excel-sheet models.

The problem is that financial systems are not merely subject to known and quantifiable risks but to the pure uncertainty of “unknown unknowns” and of “known unknowables”. The former derives from geopolitical, political, technological, economic and other shocks that simply cannot be predicted or quantified in any meaningful way. The latter is related to factors that cannot be resolved due to inherent information gaps and asymmetries (for instance, the "moral hazard" problem of monitoring management behavior). Moreover, note that all the above factors interact with each other in multiple, non-linear ways. Second and third-order feedback loops result in complex and unpredictable evolution of outcomes.

Financial systems are complex adaptive systems that are constantly evolving in an unpredictable world. This is just as much a world of indeterminable uncertainty as of quantifiable risk. The introduction of rigid and prescriptive regulations aimed only at risks are not merely inadequate but may have harmful unintended consequences from an uncertainty management perspective. For instance, one can argue that sudden growth of "shadow banking" across the world is partly due to the imposition of stricter norms on banks. The result is that financial sector vulnerability has simply shifted to the unregulated part of the system. This is not to argue that Basel III should be rolled back, but to point out that the current approach has its limits. Rather than stumble into ever more stringent regulations, perhaps the time has come to take a wider view of the matter. The following is a list of some of the issues that need to be considered:

1) **Supervision versus Regulation:** There has been a tendency to treat regulation and supervision as being broadly the same thing or at least substitutes. However, there is a big difference between the rule bound approach of regulation and the business of active supervision. In a fluid and unpredictable world, we need to take the latter just as seriously. Yet, the emphasis worldwide has been almost entirely on regulation even though the norms were set up by a group ironically called the Basel Committee on Banking Supervision. For

instance, almost all the banking sector scandals in India of the last couple of years were due to failures of supervision, and not due to lack of regulations. Even more regulation would not have averted the problems. One could argue, of course, that we need more of both but we need to be careful here. There will always be limited resources and we do need to think about trade-offs. Indeed, ever more regulations can shift attention to mindless box ticking and make the financial system rigid and opaque. Perhaps the time has come to discuss the institutional capacity and incentives of regulators rather than the imposition of more stringent rules. This realization is finally dawning on the Basel Committee and it has issued a list of Core Principles for effective banking supervision. My own reading of the current formulation of the principles is that they are too general to be effective, but at least it is a start.

2) **The role of Rating Agencies:** One of the results of the Basel approach has been to make credit ratings by rating agencies a part of the regulatory framework. Before this, they were merely educated opinions that could be used as an input for investment decisions. The change has not gone unnoticed but most of the criticism has focused on repeated failure of rating agencies to predict credit events and the consequent need for aligning incentives. Perhaps the real problem is that we are taking the forecasting abilities of rating agencies too seriously. Are we the victims of what economist Friedrich von Hayek termed the "pretense of knowledge"? Perhaps, we should recognize that rating agencies have only limited capability of predicting the future course of outcomes. Hardwiring risk weights and credit ratings is not just leading to false quantification of unknown unknowns, but unnecessarily inserting a self-reinforcing feedback loop where a change in credit rating influences the credit event. No amount of fixing incentives of rating agencies will solve for this. This is not

to argue that rating agencies cannot play a useful role in quantifying risk or that their incentives structure should not be realigned, but merely to point out their limitations when dealing with uncertainty.

3) **Genetic diversity**: Closely related to the above problem is that of genetic diversity in the ways banks manage risk. Banks used to be allowed to manage their risk based on their internal assessments and models. It was found that this led to gaming (or "optimization" if you prefer the euphemism) of the system, and therefore standardized models were imposed. This may be good for discouraging gaming although standardized models too can all be "optimized". Worryingly, however, all banks around the world now manage their risk in roughly the same way. In an unpredictable world buffeted by what Nassim Taleb calls "Black Swans", it is only a matter of time before the global financial system is hit by a shock that was not anticipated by these standardized models. Lacking diversity, many parts of the financial system will fail at the same time. This is akin to what happens when an epidemic hits a biological system lacking genetic diversity. There is some evidence that the widespread use of similar Value-at-Risk models had contributed to the Global Financial Crisis 2008 by encouraging a form of herd-behavior. In other words, what may be good for managing Risk may be poor for the problem of managing Uncertainty.

4) **Risk Shifting & Shadow Banking:** One of the unintended consequences of the imposition of stricter regulations and capital requirements on banks has been the explosive expansion of "shadow banks". This is a global phenomenon and has taken many different forms in different parts of the world. In India, it translated into the rapid growth of non-banking finance companies (NBFCs). It is quite clear that we need to impose more regulation and transparency on NBFCs,

but let us also be aware of the trade-off. If we impose heavy bank-type regulations on existing NBFCs, we will either be shutting off capital availability to a significant part of the economy or we will be shifting systemic risk to yet another part of the financial system. By chasing risk-taking into the less regulated and non-transparent recesses of the financial system, we are effectively converting Risk into Uncertainty. There is no easy solution to this wider issue, and only an intelligent regulatory trade-off combined with flexible and active supervision can be made to work.

5) **Skin in the Game:** The previous points were all about unknown unknowns. However, there is also the issue of known unknowables - particularly those related to moral hazard and irresponsible behavior. This can apply to managements as well as shareholders. The problem arises because a lot of actions of key financial system players are not directly observable and, given the inherent riskiness and uncertainty of outcomes, it is not easy to hold the players accountable. One way to circumvent this problem is to ensure that decision-makers have "skin-in-the-game". This can be introduced at multiple levels in order to ensure alignment of incentives. One area that has attracted a lot of attention since the Global Financial Crisis of 2008 is management compensation. You will all be conversant with the debates over variable compensation, claw-backs, delayed encashment and so on. In the first week of November, RBI issued new guidelines for private bank CEO remuneration. However, the same skin-in-the-game argument could apply to shareholders. Scholars like Prof Anat Admati of Stanford have often argued that capital requirements should just focus on the equity capital base and leverage as this represent the true loss absorption capacity of a bank. One could equally argue that having more equity at stake would make shareholders much more cautious and long-term oriented.

6) **Board of Directors & Corporate Governance:** The problems of moral hazard, unknowables and uncertainty brings us to a gamut of old-fashioned solutions - corporate governance, the culture of compliance and the role of the Board of Directors. As RBI Deputy Governor M K Jain said in a recent lecture: "Sound corporate governance and compliance culture will permit the supervisor to place more reliance on the bank's internal processes. In this regard, supervisory experience underscores the importance of having appropriate levels of authority, responsibility, accountability and checks and balances within each bank". I have directly quoted him as I could not have put it more succinctly. Let me add, that the Board of Directors of a bank or any corporate institution for that matter, is the first line of defense. Sadly, it is just not taken seriously enough in India, especially the role of independent directors. Do we need more stringent regulation of directorships? Perhaps to an extent, but simply using the stick will not work here as it will merely discourage good quality people from participating. We need a serious national debate on how to attract talent to corporate boards, including those of banks, and provide appropriate incentives.

7) **Insolvency, contract enforcement & dispute resolution:** All the above issues relate to ex ante ways of dealing with the problem of uncertainty. However, even with the best management systems, things will inevitably go wrong. Therefore, ex post resolution and recovery is critical. In an uncertain world, no amount of ex ante risk analysis and management can compensate for this. The introduction of the Insolvency and Bankruptcy Code in 2016, and its implementation since 2017, are important steps in this direction. Nonetheless, India continues to perform poorly in contract enforcement and dispute resolution. With some 35 million pending cases, the legal system is clogged. The World Bank's Ease of Doing Business rankings promoted

India from 142nd in 2014 to 63rd in 2019. However, the sub-ranking for contract enforcement places India at 163rd place out of 190 countries. It can be argued that this is now the single biggest constraint on India's economic and financial health. The way in which we currently try to circumvent this problem is by making ever more complex regulations and contracts. However, as we know from the work on "incomplete contracts" by economists like Oliver Hart that, in a world of uncertainty, it is not possible to write complete contracts (and by extension regulations) for every future contingency. Thus, we are fruitlessly adding ex ante complexity in order to solve for failures of ex-post resolution and enforcement.

The above list is neither exhaustive nor are the issues unique to India, although some may be more important in the Indian context. The idea was to briefly illustrate how the framework for thinking about Uncertainty is radically different from that needed for Risk. In this lecture, I have applied the framework exclusively to the issue of managing the financial sector and the limitations of the Basel-type approach, but this line of thought, based on complexity theory, can be applied to fields as diverse as urban design and industrial policy. Since we live in a world that is complex, evolving, non-deterministic, and unpredictable, we cannot make policies and regulations that make a "pretense of knowledge". There is no escape from active management/supervision, skin-in-the-game, ex post resolution and old fashioned values such as corporate culture.

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About the Speaker

Mr. Sanjeev Sanyal is the Principal Economic Adviser to the Government of India and Co-chair of G-20's Framework Working Group. An Internationally acclaimed economist and best-selling author, he spent two decades in the financial sector and was Global Strategist & Managing Director at Deutsche Bank till 2015. He was named Young Global Leader by the World Economic Forum in 2010. He is also a well-known environmentalist and urban theorist. In 2007, he was awarded the Eisenhower Fellowship for his work on urban dynamics. He has been a Visiting Scholar at Oxford University, Adjunct Fellow at the Institute of Policy Studies, Singapore and a Senior Fellow of the World Wide Fund for Nature. He has also served on the Future City Sub-Committee of the Singapore government tasked with building a long-term vision for the city-state.

Mr. Sanjeev Sanyal attended Shri Ram College of Commerce, Delhi and Oxford University where he was a Rhodes Scholar (1992-95). His best-selling books include Land of the Seven Rivers, The Indian Renaissance and The Ocean of Churn, all published by Penguin. In addition, he has published around 200 articles, columns and reports in leading national/international publications. He has been a Fellow of the Royal Geographical Society, London and a Visiting Fellow of IDFC Institute, Mumbai.

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