

## **Jwala Rambarran: Shiva's wrath – Divali, creative destruction and central banking**

Speech by Mr Jwala Rambarran, Governor of the Central Bank of Trinidad and Tobago, at the Central Bank of Trinidad and Tobago's annual Divali celebrations, Port-of-Spain, 25 October 2015.

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Sita Ram, good evening and a warm welcome to every one of you who graciously accepted our invitation to attend Central Bank's 2015 Divali celebrations.

This is the fourth year Central Bank has opened its Divali celebrations to the public in this noteworthy manner...and it's truly our honour to give this valuable gift of art and culture to our country during the festive Divali season.

In 2012, when we started these more engaging Divali celebrations we began with the traditional story of Lakshmi who is easily associated with Divali, as she is the Goddess of Light and Prosperity.

In 2013, we took a different approach. We realized there were themes and lessons in the Ramayana that were very applicable to the Central Bank. So, we chose Hanuman for our Divali program. We highlighted how Central Bank, like Hanuman, is a faithful servant to the people of our country and how we diligently ensure their financial protection, no matter the size and ferocity of the Ravans (demons) we take on.

Last year, we continued our exploration of the Ramayana, staging a dance performance entitled ***Paanch Kahani***. It is Hindi for five stories. We selected five unusual stories from the Ramayana, each with a powerful message for central banking.

The first story was about Shraavan Kumar, a lesser celebrated character in the Ramayana, but incidentally the entire reason the epic Ramayana was written. His life was one of devotion to his parents and this is what led to his death and triggered the chain of events that is the Ramayana. The second story was about King Dashrath who accidentally killed Shraavan Kumar but as king of Ayodhya was duty bound to keep his promise. The third and fourth stories are about Ram's brothers, Bharat and Lakshman who personified servant leadership and loyalty, respectively. The final story was about Ram's twin sons, Luv and Kush...representing the future.

In 2015, we have again taken a different path. Tonight, we present ***Lord Shiva: Creative Destruction***, a dance drama by Rana and Susan Mohip. "Creative Destruction" seems to be a paradoxical term. At first blush, it does not seem to be associated with the universal message of Divali, the triumph of good over evil. Nor does it seem to be relevant to central banking and the economy.

However, generations of economists have associated the term "***Creative Destruction***" with the Austrian economist Joseph Schumpeter who writing in the 1940s described capitalism as "the perennial gale of creative destruction". It has become a shorthand description on how economies evolve, incessantly destroying old jobs, companies and industries, incessantly creating new ones.

Transportation provides a dramatic example of creative destruction at work. For the older generation, I am sure you remember how the bison carts were replaced by the train (not the Rapid Rail) which, in turn, was replaced by the car. But all of this creation did not come without destruction. Each new mode of transportation took a toll on existing jobs and industries...and will continue to do so.

For the younger generation, the concept of creative destruction might seem intuitive. This generation has seen laptops, smartphones, and social media replace typewriters, fax machines, and newspapers. They have seen the birth of the Internet spawn the need for

hundreds of webmasters, an occupation that did not exist when I joined the Central Bank in 1990, some 25 years ago.

Herein lies the paradox of progress. A society cannot reap the rewards of creative destruction without accepting some individuals might be worse off. Trinidad and Tobago would do well to heed this lesson, as we strive to diversify the economy away from oil and gas at a time of falling energy prices. Economic diversification is about creative destruction. Diversification means creating new sources of foreign exchange, while destroying the industries that consume foreign exchange. Attempts to soften the harsher aspects of creative destruction by trying to preserve unsustainable jobs or protect uncompetitive industries will not advance our economic diversification process.

So while economists associate the concept of creative destruction with Schumpeter, the idea itself is a very old one, well before Schumpeter. Going back further in time, the process of creation and destruction plays a central role in Hinduism. Here we find one of the most complex and certainly one of the richest cosmological illustrations of the dynamics of creation and destruction.

At the heart of Hinduism are the three supreme godheads of the pantheon: Brahma the Creator, Vishnu the Preserver and Shiva the Destroyer. Brahma creates the universe; Vishnu protects what comes into being; Shiva, in turn, is the destroyer of the universe, fated to destroy it as it winds down in order to bring about its regeneration. After Shiva finishes his work of destruction, Brahma, in turn, begins the creation of the universe: thus the cycle is infinite.

Shiva is responsible for change both in the form of death and destruction. What does that mean? Simply put, it means that destruction is for a purpose. It is not annihilation, but transformation.

Tonight, you will see story of the birth of Lord Ganesh, which depicts Shiva both as creator and destroyer. Long time ago when Lord Shiva, was away fighting for the gods, Goddess Parvathi was alone at home on Mt. Kailash. On one occasion, she needed someone to guard the house when she was going for a bath. Unable to think of an alternative, she used her powers to create a son. She instructed her son to keep strict vigil on the entrance to the house and not to allow anyone into the house. In due course, Shiva came home, only to find this strange boy telling him he couldn't enter his own house. Furious, Shiva ordered his army to destroy the boy, but they all failed.

This surprised Shiva. Seeing that this was no ordinary boy, Shiva decided he would have to fight him, and in his divine fury severed the boy's head, killing him instantly. When Parvati learned of this, she was so enraged and insulted that she decided to destroy the entire Creation. Lord Shiva having cooled down by this time, and realizing his mistake, attempted to pacify Parvati by agreeing to meet her two conditions: one, that her son be brought back to life, and two, that he be forever worshipped before all the other gods.

Lord Shiva sent his soldiers out with orders to bring back the head of the first creature that came in sight sleeping with its head to the north, the auspicious direction associated with wisdom. They soon returned with the head of a strong and powerful elephant, which Shiva placed onto the boy's body. Breathing new life into him, he declared the boy to be his first son, and gave him the status of being foremost among the gods. He was called Ganesh.

The message is when we are too egotistical; the root problem must be cut. By cutting the head of the boy who was egotistical, Shiva was cutting the root problem of the mind that thinks too highly of itself. Why replace the boy's head with the head of an elephant? The elephant represents both *Gyan Shakti* and *Karma Shakti*. The large head of the elephant signifies wisdom, understanding and discriminating intellect. Elephants don't walk around obstacles, neither are they stopped by obstacles. By replacing the boy's head with the head of an elephant, Lord Shiva replaced it with something that was beneficial to the world and for the betterment of the people. Although the birth of Lord Ganesh appeared to be destructive, it was indeed creative and would benefit everyone involved.

The message associated with the birth of Lord Ganesh has relevance for us here at the Central Bank. Our power and authority to manage the financial system comes from the people of Trinidad and Tobago. We must exercise this great power without being egotistical. We must exercise our power in a fair and just manner, with knowledge of what actions are best for the overall health of Trinidad and Tobago's economy.

Tonight, we will also see another aspect of Shiva as both the creator and the destroyer. In this capacity, he is often represented as the *Shiva Nataraja*, the Lord of the Dance. His Tandava dance is the dance of the universe, as it endlessly moves from creation to destruction, destruction to creation.

Until recently, scientists considered the atom to be the fundamental particle in physics. We now know there are sub-atomic particles; some make up matter and some carry forces. Movement of sub-atomic particles involves a set rhythm. This is called *Laya* in Indian thought. *Laya* is the attribute of Shiva in his Tandava dance. The movement of these sub-atomic particles creates energy. Where does this energy go?

Well some of you may be familiar with the term "Big Bang" (and I am not talking about the CBS hit comedy with Leonard, Penny, Sheldon and the rest of the gang). I am talking about CERN or the European Organization for Nuclear Research, an international organization based in Geneva, Switzerland. Scientists at CERN are using the Large Hadron Collider (LHC), the most powerful particle accelerator on the planet, to recreate the primordial conditions of the universe, and create a small version of the so-called 'big bang', by smashing atoms at near-light speed.

In July 2012, scientists at the CERN laboratory discovered the latest subatomic particle – the Higgs boson – named after the Nobel Prize winner in Physics Peter Higgs, and known by its nickname the "God particle" in popular media outside the scientific community. The Higgs boson is thought to give everything else in the universe mass and to keep the universe from destruction. It is part of Shiva's Tandava dance.

Is it a coincidence that the statue in front of the CERN complex is none other than Shiva Nataraja – the dancing Shiva? For many modern physicists, Shiva's Tandava dance is seen as the dance of subatomic matter. The Tandava thus unifies ancient mythology, religious art and modern physics.

Here at the Central Bank, some would say that our monetary policy is similar to the Tandava dance, as we move our policy interest rate to destroy inflation, create the conditions for growth in the non-energy sector, and protect the foreign exchange market. Or they might even say that the CLICO crisis has been a process of creative destruction, with the pain of thousands of policyholders making way for new and stronger insurance regulation and supervision.

Two weeks ago, Professor Angus Deaton won the 2015 Nobel Prize in Economics. Professor Deaton has changed our thinking about world progress. His popular book *The Great Escape: Health, Wealth and the Origins of Inequality*, traces the ways the world has gotten better over the last 250 years, as billions of people have become healthier and happier as GDP has grown. But he notes crises can interrupt progress, and he worries about the millions of people who are being left behind by this progress, especially in developed countries where inequality is growing and economic growth is slowing. Professor Deaton's works reminds us that pain and gain are inextricably linked to creative destruction.

Hopefully, you will leave here tonight with a greater appreciation of the message of Divali. Remember the act of lighting a deya is creative destruction, destroying evil and darkness and creating a new opportunity for the *Satyam, Shivam, Sundaram* (Truth, Goodness and Beauty) of the universe to unfold.

I wish you and your family Shubh Divali 2015.

May your paths always be lit; may your minds always be illuminated.

I hope you enjoy Lord Shiva: Creative Destruction.