



**The Significance of Innovation  
for the Central Bank  
Against the Background of a Changing Kingdom**

**Speech delivered by  
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Ladies and gentlemen, good evening.

Fundashon Pro Inovashon Nashonal has made an excellent choice in recognizing the importance of innovation in tonight's event.<sup>1</sup> The world in which we live is changing in fundamental ways, and our traditional models for understanding it no longer work very well. Innovation can provide us with new models for adapting to our changing world. We all experience innovation in our day-to-day lives without being fully aware of its significance, its potential, and its challenges.

What is innovation? The Conference Board of Canada defines innovation as "*the process through which economic and social value is extracted from knowledge through the generation, development, and implementation of ideas to produce new or improved strategies, capabilities, products, services, or processes.*" Simply put, innovation can be described as the introduction of something new. The something new can be a new idea, a new device, or a new method of doing something. Something new does not necessarily have to be something entirely new; it can be an improvement of something that already exists. In addition, innovations can be tangible or intangible. Tangible innovations include, for example, new or improved products, such as a tablet computer, a smart phone, and LED bulbs. Examples of intangible innovations include new or improved computer programs, and business, industrial, and biotechnology processes. A new product or process cannot automatically be considered an innovation. An innovation must contribute to something useful, such as increasing productivity, reducing costs, improving our health, protecting the environment, or using fewer fossil fuels. We also must realize that a successful innovation in one country, industry, or company does not automatically translate into success when applied in another country, industry, or company. Different circumstances will produce different results, one of which can be failure.

Therefore, it is very important to make sure that the necessary conditions exist or can be created to increase the chance that innovations will produce the desired results. I see an important role for Fundashon Pro Inovashon Nashonal in promoting research and increasing awareness among the government, the business community, and the general public to make innovation a conscious part of our lives. This awareness will contribute to a strengthening of our competitiveness and, hence, to higher economic growth and prosperity for our young country.

My address tonight consists of two rather different parts. First, I would like to discuss with you the role of innovation in the central bank. As a central banker, this is a topic that is close to my heart. Second, I would like to share some of my thoughts on necessary innovations in the relations between the four countries comprising the Kingdom of the Netherlands to improve the Kingdom's functioning in a mutually beneficial way.

Ladies and gentlemen, in the central bank, innovation plays a role from things as basic as the central bank's office operations to new ways of fulfilling our main tasks laid down in the Central Bank Charter. In our general office operations, we are constantly seeking ways to reduce costs. Some recent examples are internet phone services, the replacement of fluorescent light bulbs by LED light bulbs, and the placement of solar panels. Furthermore, as we are the central bank of Curaçao and Sint Maarten, we have to meet regularly with financial institutions and government departments in Sint Maarten and Curacao. Innovation has made it possible, where and when appropriate, to reduce our travel expenses by video conferencing using Skype.

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<sup>1</sup> It would be remiss if I did not mention the establishment of Innovatie Centrum Curacao in 1991.

The internet has become essential in dealing with the financial institutions under our supervision and international organizations, such as the IMF. The banking institutions report all required data through a secured website of the central bank.

From there the data are uploaded to our systems for further processing. Also our data-reporting obligations for the IMF are met by uploading the data to a secure IMF website. In addition, most of our business contacts are handled through e-mail. These examples demonstrate that we have made significant progress in reducing costs and improving efficiency by using new techniques (innovations) now available to us.

Innovation is also a driving force in effectively fulfilling the main tasks of the central bank. In article 3 of the Central Bank Charter, these tasks are defined as (1) promoting the stability of the currency, (2) promoting the soundness of the financial system, and (3) promoting a safe and efficient payments system. Let me elaborate on the role of innovation for each of these tasks beginning with the third one--promoting a safe and efficient payments system.

A safe and efficient payments system has two parts: the cash system and the noncash system. The role of the central bank in the cash system is to issue and bring into circulation bank notes and coins. Innovation plays a major role in the design and composition of bank notes. Security features to minimize counterfeiting are constantly evolving. Also the materials of which bank notes are made are evolving to prolong durability and, hence, reduce the cost per note. For example, bank notes made of polymers, better known as plastic, instead of paper are gaining ground and were recently introduced in Canada. Also the processing of used bank notes has become fully automated. We have a sophisticated machine that selects bank notes still fit for circulation and bank notes to be destroyed based on set quality parameters. Innovation contributes to new machines that work faster and make fewer errors. The Bank is currently evaluating all those new features to include in the long overdue new bank notes. The current paralysis in the decision-making with regard to the new bank notes are causing unnecessary risks to the current system.

The noncash payments system comprises cheques, written bank transfers, and all electronic payments such as the use of debit cards, credit cards, and internet banking. The transactions between clients of different banks are cleared daily through the central bank. This process is largely automated through the Netherlands Antilles Clearing system (NACS), which all local banks (including those on the BES islands) are connected to. The system is updated regularly by adding new functionalities with the aim of a fully automated clearing process. Noteworthy is that the local banks have indicated that they want to gradually phase out the use of cheques, which require very costly and labor-intensive processing, and phase in electronic forms of payment. We welcome this development. The central bank also supervises the payment systems at the individual banks to make sure that they meet international standards for security and reliability.

Ladies and gentlemen, the task of promoting the stability of the currency--the first main task in the Central Bank-Charter--is executed by the central bank's monetary policy. The fixed peg of the Netherlands Antillean guilder to the US dollar can be maintained only by guaranteeing that sufficient foreign exchange is always available to settle our international payments. Our benchmark is foreign exchange reserves sufficient to cover at least 3 months of goods and services imports. This brings me to a simple explanation of the monetary transmission mechanism: if the banks extend more credit, the result will be more spending, more imports, and the use of more foreign exchange, which ultimately could lead to a decline in foreign exchange reserves. The central bank's monetary policy tries to influence the growth rate of credit extension by the banks to reverse a downward trend in foreign exchange reserves to prevent the reserves from reaching a level at which the stability of the peg is questioned.

During the past decades, the main innovation in the central bank's monetary policy has been a shift from direct credit controls to liquidity-driven instruments.

Before the 1990s, credit ceilings were applied to control credit growth at the commercial banks. In the nineties, these ceilings were replaced by a more flexible credit measure, the monetary cash reserve arrangement. For example, excess credit growth was allowed but at a penalty, and unused growth margins could be traded among banks. Nevertheless, prolonged use of credit measures causes rigidities in the banks' balance sheets and hampers new banks from expanding, thereby stifling competition in the banking sector. Also in the nineties, the first steps towards liquidity-driven instruments were taken with the introduction of the reserve requirement and auctions of certificates of deposit (CDs). Under the reserve requirement, the banks have to hold a blocked non-interest-bearing deposit at the central bank determined as a percentage of their domestic liabilities, limiting their access to liquidity for credit extension. The reserve requirement was supplemented by the bi-weekly auctioning of CDs, tradable interest-bearing securities, to steer banking liquidity during the fixed reserve requirement period. As of the beginning of this century, the reserve requirement and the auctioning of CDs became the central bank's main monetary policy instruments.

The reserve requirement and CD auctions worked well under normal circumstances. However, the debt relief provided by the Dutch government during 2009 and 2010 as part of the constitutional reforms caused significant excess liquidity in the banking sector. In the year after the debt relief, the unsustainable high deficit on the current account of the balance of payments again became prominent, combined with high credit growth and a declining trend in foreign exchange reserves and the import coverage. These developments prompted the central bank to tighten its monetary policy by increasing the reserve requirement beginning September 2011. Given the high excess liquidity, the increase of the reserve requirement was not effective in reducing credit growth and, hence, moderating the decline in our foreign exchange reserves. That's why we temporarily revived the credit control measure as of March 2012.

This action has proven successful in attaining our monetary objectives. In February 2012 our balance of payments recorded a deficit of over NAf 500 million; today, as a consequence of those credit control measures, the deficit stands at NAf 62.6 million.

Ladies and gentlemen, innovation is not always easy. Fear of the unknown often generates resistance to new ideas. Therefore, it is important to create an environment conducive to innovation by creating champions to help overcome resistance.

We live in a period of *Unconventional Monetary Policy*. To quote Jean-Claude Trichet<sup>2</sup>, the former President of the European Central Bank: "...we all have had, since mid-2007, the great privilege to experience extraordinary demanding and difficult times..." He went on to say: "The widespread introduction of so-called non-standard monetary policy measures by major central banks has been a defining characteristics of the global financial crisis." Most of my professional life I spent thinking and practicing monetary policy. The basic tenet of my thesis was that in a small open economy as ours, fiscal consolidation is an indispensable condition for monetary stability. The debt relief program in the context of the constitutional changes was the fulfillment of that expectation. However, suddenly in the blink of an eye, the market for government bonds dried up, depriving the Bank of an important policy instrument, namely, the ability to conduct monetary policy through open market operations. To fill that vacuum, we embarked on the development of the corporate bond market. While the corporate bond market has been gaining new momentum elsewhere, the development is being viewed with apprehension here. It baffles

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<sup>2</sup> Unconventional Monetary Policy Measures: Principles-Conditions-Raison d'être. Speech delivered at the IJCB conference "Central Banking: Before, During, and After the Crisis" held on March 23-24, 2012 at the Board of Governors of the Federal Reserve System in Washington, DC.

the mind to observe that in the aftermath of the Great Recession of 2008, there are still some people who advocate strict adherence to conventional monetary policy.

Ladies and gentlemen, let me expand on how innovation relates to the final main task of the central bank --promoting the soundness of the financial system--which is the responsibility of our prudential supervision. The global financial crisis has triggered major innovations in financial sector supervision. These innovations should minimize the chance that such a crisis would happen again in the future, and they comprise not only reforms in financial regulation in areas such as capital, liquidity, provisioning, accounting, and compensation, but also and more important, a more comprehensive macro approach to supervision.

The financial crisis revealed several weaknesses in the way supervision was executed pre-crisis. These weaknesses included, first, a backward-looking approach that focused on the financial institutions' historic data. The second weakness was an overreliance on financial firms' own risk analyses and internal controls. Third, new complex financial products and their risks were not fully understood. Fourth, the general microprudential approach that was used focused on individual, regulated entities, and not enough attention was paid to the sector as a whole or to risks from outside the regulated system. The fifth weakness was a hesitation to act quickly when the first signs of undesirable developments were detected.

Modern post-crisis supervision is focused on risk management, a system-wide approach, and coordination between prudential, monetary, and macroeconomic frameworks. This new macroprudential approach will complement the traditional microprudential supervision. For optimal coordination between micro- and macroprudential supervision, these functions ideally should be under one roof. In our central bank, this is already the case. I modestly have to admit that this arrangement is not because we had a great vision of what the future would call for, but rather, for economies of scale. Due to our small scale, it is much more cost efficient and effective to concentrate the supervision of the entire financial sector at the central bank instead of separating it among different agencies.

Macroprudential policies are directed at achieving greater financial stability. An important element of the macroprudential approach is conducting analyses to get a good understanding of the risks building up in financial institutions and the sector as a whole. These analyses are forward-looking, and they include simulations of the impact of economic shocks on the soundness of the financial sector and its institutions, so-called stress tests. Based on the results of these tests, macroprudential policies are developed aimed at strengthening the resilience of the financial sector against shocks.

Macroprudential tools are typically counter-cyclical, building buffers in good times to absorb losses in bad times. These tools can be divided between tools to influence lenders' behavior, such as cyclical capital requirements, leverage ratios, and dynamic provisioning, and tools to influence borrowers' behavior, such as ceilings on loan-to-value ratios that determine the maximum loan amount relative to the value of real estate, and debt-to-income ratios that determine the maximum allowed amount of accumulated debt relative to the income of a borrower. Given their characteristics, these tools also can complement the available monetary policy tools to achieve the monetary objectives of the central bank.

The central bank adopted this broader approach to financial sector supervision with the establishment of a Financial Stability department in July of this year. During this year and next

year, the department will be built up to full strength to give financial stability a prominent place within the Bank's organization.

Ladies and gentlemen, I would like to devote the final part of my address to an entirely different topic from that of the central bank, namely, my view of some necessary innovations in the relations between the Kingdom partners.

I think this is a proper moment after we have just celebrated the third anniversary of the country status of Curaçao and Sint Maarten in the Kingdom of the Netherlands.

Three years of new constitutional relations have been overshadowed by frequent tensions between the new Kingdom partners and the Netherlands. These tensions included the intended limitations on settlement in the Netherlands for citizens from the Caribbean Kingdom partners and instructions by the Kingdom Council of Ministers to balance the government budget and improve public governance. During these periods of tensions, emotional calls to leave the Kingdom and become independent usually arise. These incidents demonstrate that we are still searching for an acceptable balance between the autonomy of the countries and the responsibilities of the Kingdom for safeguarding human rights, the rule of law, and good governance.

As mentioned in my introduction, we are living in a changing world that includes a changing Kingdom. We tend to assume that Holland is a static country about which we know everything there is to know. We forget that over the past two decades, Holland has changed as much as any region in the world. The European Union has been created and has expanded beyond Western Europe to bring in diverse new members. In many ways, Holland is now a very different place. This new reality, I think, requires a different mindset. It requires a more sophisticated understanding of the complexity of this change. We need stewardship based on a society that has to understand its responsibilities and not be rushed into rash decisions, which can only isolate us and make us very vulnerable. We have to engage this changing Holland rather than react defensively to it. We have to restore a confident, forward-leaning country and not become hunkered down behind cultural walls. If a problem arises, we do not have to fight the problem but rather, we have to understand the problem and solve it.

Instead of looking through one end of the telescope, both sides tend to look through the other end at a myriad of little problems.

In my opinion, some innovations are necessary in the way we deal with each other in the Kingdom to improve the functioning of the new constitutional structure. In this context, it is important to realize that although we are equal partners in the Kingdom, we are not similar. The Netherlands has a long tradition as a democratic constitutional and welfare state and a much larger population and economy than the Caribbean Kingdom partners. For example, the combined population of the Caribbean Kingdom partners is less than 2% of the population of the Netherlands, while the combined economies are less than 1% in terms of GDP. This asymmetric reality has created a cultural misunderstanding which has led us to an excessively one-directional reliance on Holland to solve problems that are deeply rooted and not fully understood. A great deal of time and patience will be required to work out a more balanced relationship.

Curaçao and Sint Maarten are microstates, but they have to build up and maintain all the institutions necessary to function as a democratic constitutional state. This institution building began only three years ago in Sint Maarten. Curaçao has a longer tradition in this area because the former central government was concentrated in Willemstad, but it is still struggling to merge

the central and island administrations. Moreover, the distance between politicians, civil servants, and citizens is much smaller than in the Netherlands. These differences imply that the strength of governance can never meet the standards common in the Netherlands. However, we have to be mindful of the dangers of exceeding the limits of this argument. Recent events have reminded us that self-serving arguments can extract a huge historic price.

Ladies and gentlemen, we tend to recur too frequently to international law and regulation standards when calling for necessary improvements in the Caribbean Kingdom partners. However, it is important to remember that domestic moods are driven by where the shoe pinches, and they can be exaggerated by fears and ignorance. Therefore, local capacity limitations and differences in culture must be taken into account.

I think we can work together in the Kingdom in a constructive way that will produce additional benefits for all individual partners and for the Kingdom in its entirety. To achieve that constructive working relationship, some innovations are required in the relations between the Kingdom partners that take into account our differences.

The bottom line is, we have to act together in some systematic way. As became abundantly clear during the last visit of Prime Minister Mark Rutte, we have to generate a shared strategic direction. We have to find an equitable balance between the sharing of decisions and the sharing of burdens. We have to define goals that are not just self-serving but which address the larger dimensions of the Kingdom. Here is where innovations at the Kingdom level have to play a pivotal role.

Ladies and gentlemen, innovation is an ongoing process that influences our daily lives whether we like it or not. We can't and shouldn't hide from innovation but rather, we should embrace it to improve the way we live, work, run our country, and shape our future. I wish you some inspiring and fruitful workshops in the days ahead to make innovation a way of life.

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