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## **Summary**

### **1. US Watching: Regulatory Science: Political Struggle over Expertise and Transparency**

As the EPA tightens environmental regulations, there are mounting criticisms on the objectivity, expertise and transparency of the EPA's regulatory science. Related bills have been submitted in both Houses and developments must be closely monitored.

### **2. EU Watching: Germany's Efforts to Spread Hydrogen Stations**

Germany plans to build 400 hydrogen stations by 2023, but the launch of fuel cell vehicles to the market is being delayed. Ensuring a balance between the development of infrastructure and vehicles is the key to success.

### **3. China Watching: Basic Principle of the Comprehensive Energy Policy for 2015**

The National People's Congress (NPC) which closed on March 15 approved the basic principle for government activity for 2015. The highlights include the decision to accelerate the development of renewable energies and the reforms of the electric power system.

### **4. ME Watching: Another Terrorist Attack and Military Intervention**

Another terrorist attack struck Tunisia, while Arab states launched a fresh military intervention in Yemen. The confrontation between Iran and Saudi Arabia, the state of the cleanup operation against ISIS/ISIL, and the progress of the Iran nuclear talks remain as the key developments to monitor.

### **5. Russia Watching: Deepening Uncertainties in the Putin Administration**

Two mysterious incidents occurred: the assassination of former First Deputy Prime Minister Boris Nemtsov, and the "disappearance" of President Putin for almost 10 days. The true intentions of the President's words and deeds are becoming increasingly unclear.

## 1. US Watching: Regulatory Science: Political Struggle over Expertise and Transparency

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Policies on the environment and safety should be based on scientific grounds backed by objective data. However, many areas such as meteorology and the ecosystem face uncharted territory, and previously known “facts” are often overturned by the latest research and discovery of unexpected phenomena. In a world full of uncertainty, who defines the “best available science” on which government policies should be based, and how?

The scientific knowledge on which government regulations are based, or regulatory science, has been debated in the US for over half a century. In particular, regulatory science has been greatly affected by a series of requirements on administrative agencies: the requirement to analyze the cost and benefit of a regulation which they draw up (1980s), to present the basis for the necessity of regulation (1990s), and to present costs and benefits in monetary terms wherever possible (2000s). To present the necessity of regulation, agencies must not only demonstrate the existence of risk, but also assess the economic benefit of averting or mitigating that risk, and also show that the proposed regulation is the most effective and efficient way of tackling that risk. To do all this, it is necessary to collect accurate data, make logical and objective deductions, build academically trusted models and analysis frameworks, and ensure the analysis process is transparent.

As the EPA tightens various environmental regulations, there are mounting criticisms on the objectivity and transparency of the regulatory science on which it relies. On February 24, at the Senate, Republicans condemned the EPA for failing to disclose the data and analyses on which its regulations are based, criticizing it as a breach of President Obama's order to use “the best available scientific knowledge”, and submitted the Secret Science Reform Act that prohibits the EPA from establishing regulations based on undisclosed information. On the same day, in the House of Representatives, Republican lawmakers submitted a bill to reform the EPA's Science Advisory Board, which would prohibit the Agency from adding to its advisory board any registered lobbyist or any researcher on an EPA grant or contract. Democrats are arguing that the law, if enacted, would lower the quality of scientific knowledge that the EPA has access to. The Executive Office of the President indicated that the law, if passed, would be vetoed.

The objectivity and transparency of regulatory science are fraught with complex issues. Many of the analyses that provide the basis for a regulation are counsel provided by an advisory board of experts, but administrative agencies are not bound by such counsel. Further, the regulatory impact analysis, which an administrative body must conduct when drawing up a regulation, must be done in accordance with the guidelines issued by the Executive Office. Moreover, a draft regulation can sometimes be revised in line with the Administration's agenda. This is why the criteria-setting and judgment of the rationality and objectivity of the analyses are politicizing for policies such as the regulation on carbon emissions for power plants and hydraulic fracturing. Risk assessment, in other words, is an issue over “value”—whether the cost of preventing a risk should be shouldered by current or future generation. The policy discussions in the US could be useful for Japan if seen not simply as a bipolar division between the pro-industry Republicans and the pro-environment Democrats, but as a debate over values.

## 2. EU Watching: Germany's Efforts to Spread Hydrogen Stations

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To achieve its goal of reducing GHG emissions by 80% in 2050, the EU needs to switch its transportation fuel, currently mostly fossil fuels, to a completely new fuel. There are several potential fuels for next-generation vehicles, such as electricity, hydrogen and biogas, each with merits and demerits, but it is not yet clear which fuel will become mainstream. According to a survey of involved parties in Europe, electric vehicles powered by wind-produced electricity for short-distance travel, and fuel cell vehicles powered by hydrogen produced by wind electricity for long-distance travel could be promising in the long term.

The launch of Toyota's "MIRAI" last year has raised hopes for fuel cell vehicles. However, hydrogen stations are essential for producing hydrogen and increasing the use of fuel cell vehicles, and there are still many challenges to be overcome, according to experts.

To decompose water by wind-generated electricity to produce hydrogen, it is necessary to frequently switch on and off the hydrogen production equipment to match the unstable output of wind power, but this causes frequent breakdown of the compressor of the equipment. The process for producing industrial hydrogen presupposes constant operation rather than frequent starting and stopping, but production will eventually have to stop due to repeated failures. Further, at hydrogen stations where hydrogen will be stored in liquid form, much of the gas would evaporate at the initial phase when only a few cars visit to refuel with hydrogen, and this would cause considerable losses. Also, regarding the sales price of hydrogen, wind power could be used to produce competitively-priced hydrogen only if surplus wind power is available very cheaply. However, it is still not clear whether enough wind power would be introduced to produce large amounts of surplus electricity.

Due to the relatively high number of long-distance inter-city trips in Germany, hydrogen-powered fuel cell vehicles are considered promising and so hydrogen stations are now being built. The construction was initially funded by government subsidy in the test and research phases, but to pass the baton to private companies, an organization of industrial gas manufacturers, oil companies and auto makers called H2 Mobility was established to promote the use of hydrogen. This organization plans to invest 350 million euros to build 400 hydrogen stations by 2023.

However, to the surprise of everyone in the hydrogen industry, Daimler decided to postpone the release of fuel cell vehicles, and so Germany is now facing the risk that there will be no fuel cell cars to visit hydrogen stations even if they are built. As the construction of infrastructure is a "perfect opportunity" for selling fuel cell vehicles, the industry must capitalize on this opportunity and develop synergies between promoting fuel cell vehicles and building hydrogen stations; this is the key to achieving a hydrogen society. Germany's ambitious hydrogen station expansion scheme must be closely monitored.

### 3. China Watching: Basic Principle of the Comprehensive Energy Policy for 2015

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The National People's Congress (NPC) which closed on March 15 approved the basic principle for government activity for 2015. As concerns mount over slowing economic growth, the proposed government target of "around 7.0%", 0.5 points lower than that for last year, was approved. At a press conference after the event, Prime Minister Li Keqiang emphasized that 7.0% is a reasonable target, which takes into account the need for securing jobs, stable prices, and environmental protection. The target further highlighted the economic development strategy of the Xi Jinping leadership to "focus on the quality and efficiency of growth". As part of the target, the basic principle of the comprehensive energy policy, which focuses on promoting energy revolution (see the November 2014 issue of this Newsletter), was adopted.

In 2014, energy consumption per unit GDP (energy-GDP intensity) decreased by 4.8% from the previous year, the largest drop since 2009. Coal consumption fell 2.9% and the ratio of non-fossil energies in primary energy consumption increased by 1.1 points to 11.2%, further accelerating the decarbonization of the energy structure. Consequently, the CO<sub>2</sub> emissions per unit GDP (emission intensity) decreased by 6.2%. For 2015, the government has set the targets for both energy-GDP intensity and emission intensity to at least 3.1%. This rate of reduction, though lower than last year, fulfills both targets of the Twelfth 5-year Plan of minus 16% and 17% from 2010 levels, respectively.

Regarding the development of electricity sources, the policy is to approach each power source differently while raising the ratio of non-fossil electricity. For nuclear power, as the target to start building 16 GW of plant capacity by 2015 is at risk with the construction of only six new plants started since 2011, on March 11, the National Development and Reform Commission (NDRC) approved the construction of two new 1,000 MW plants. The annual policy, however, has been revised from "commence a certain quantity of construction work" to "develop nuclear power while assuring safety". This is a return to the starting point at the approving stage of the current 5-year plan, and emphasizes the commitment to "put safety before quantity".

Meanwhile, the plan emphasized ramping up the development of renewable energy by revising the wording for hydropower from "commence a certain quantity of construction work" to "actively develop", and that for wind and solar power from "encourage development" to "vigorously develop". Accordingly, on March 16, the National Energy Administration (NEA) quickly released the development plan for solar power for 2015, and set the annual target at 17.8 GW, considerably higher than last year's actual 10.6 GW. As a new effort, the NEA announced a project to lift people out of poverty with solar electricity, which gives no upper limits on the development of roof-top power generation as well as locally-produced, locally-consumed mega solar plant, and subsidizes initial investments for installations in poor areas by 70% for distributed sources and 40% for large-scale installations by the central government and the municipalities. On March 20, the NDRC and NEA released twenty-five "Guiding Opinions" urging municipalities and power transmission firms to prioritize renewable electricity and to purchase them at the full amount.

The decision has also been made to accelerate institutional reforms, and their implementation has already started. On March 16, the State Council unofficially announced the "Opinions Regarding the Deepening of the Power Sector's System Reform", whose main pillars are deregulating electricity prices except transmission fees and the tariffs for public projects, and liberalizing electricity sales and the development of distributed power sources. Further, as a step toward liberalizing the natural gas market, reforms including liberalizing the direct sale price for commercial-scale utility customers except chemical fertilizer manufacturers from April, were decided.

## **4. ME Watching: Another Terrorist Attack and Military Intervention**

Koichiro Tanaka, Managing Director &  
President of JIME Center

The attack on museum visitors in Tunisia's capital Tunis showed yet again the difficulty of preventing terrorism by armed extremists. The perpetrators have not yet been identified, but their ties with groups active in Libya, currently in civil war, or in Syria cannot be excluded. Concerns are growing about the expanding influence of Al-Qaeda and Islamic State (ISIS/ISIL) in states like Libya and Syria where the central government is losing its grip on the country.

The GCC member states and the international community have been supporting the Yemen President Hadi as the legitimate government of the country, although he has been forced to flee the capital Sana'a to Aden, and eventually to Riyadh, in order to escape the coup by the armed Houthi insurgents. As the Houthis gradually advanced from the north and recently reached the suburbs of Aden, the "Operation Decisive Storm" coalition, consisting of ten Arab countries led by Saudi Arabia, launched air strikes early on March 26 on the strongholds of the Houthis and the Yemeni Army troops that support them.

Suspecting that its hypothetical enemy Iran is backing the Houthis, Saudi Arabia, under newly enthroned King Salman, is claiming that in taking military action, it is merely exercising its right of collective self-defense as set forth in the Charter of the Arab League, at the request of President Hadi. However, despite operational coordination with and support by US forces, "Operation Decisive Storm" is yet to stop the advance of the Houthis. President Hadi's departure from the country has destabilized the political and security situation of Yemen, and tensions between Iran and Saudi Arabia will inevitably rise. Indeed, there are already fears over the security of passage through the Strait of Bab-el-Mandeb and the Gulf of Aden. Furthermore, in the medium to long term, actions of Saudi Arabia, which has not ruled out nuclear capability as a political option to counter its rival Iran, and the territorial gain of Al-Qaeda in the Arabian Peninsula (AQAP) and IS/ISIL are other sources of concern.

Seeking to wipe out ISIS/ISIL, Iraq has been carrying out a joint campaign with the Shi'ite militia and Sunni tribal forces to regain the central city of Tikrit. The commander of Iran's Islamic Revolutionary Guard Corps, which mainly supports the Shi'ite militia, allegedly left the frontline before the air strikes were launched, based partly on the wishes of the US which did not want a joint operation with Iran. Meanwhile, US State Secretary Kerry's acknowledgement of the need to eventually negotiate with Syria's President Assad has been received as a realistic change in direction by the US.

The nuclear talks with Iran reached a stage where a common understanding regarding the contents of a "framework agreement" was announced jointly by EU and Iran on early April. Although the language employed by Iran and the US to explain the details of a final agreement differ from one another, majority of the elements regarding the conditions which Iran will be obligated to honor under the "Joint Comprehensive Plan of Action" agreement are consistent. Yet, the most obvious difference, which is the modalities of a sanctions relief, is left for the parties to agree to by 30 June. In a move that has irritated the Iranian leadership once again, the US Senators have introduced a legislation to have a say in the final agreement with Iran before any sanctions relief could be announced by President Obama.

## 5. Russia Watching: Deepening Uncertainties in the Putin Administration

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At around midnight on February 27, opposition leader and former First Deputy Prime Minister Boris Nemtsov was shot dead near the Kremlin (the President's Office). On March 1, the day originally planned for a rally to protest against the war in Ukraine at his initiative, a mass demonstration was held instead to mourn Mr. Nemtsov's death, gathering more than 50,000 marchers according to the organizers. The Russian Investigative Committee announced that five Islamic radicals from the Northern Caucasus (one of whom died by detonating a bomb) had been detained as suspects by March 8, and two of them have been officially indicted.

Various rumors are circulating as to the motive behind this incident, one of which is that the murder, which was committed in one of the most strictly supervised places in the city, was perpetrated to show that even President Putin is not in complete control. The administration announced that this mysterious incident is a plot to tarnish the President's image. Others, however, say that it is part of the crackdown on criticism of the administration. The truth is unlikely to be revealed.

Ever since the start of the Putin Administration in the 2000s, there have been a number of incidents in which critics of the administration were "taken out", including the murder of journalist Anna Politkovskaya of Novaya Gazeta newspaper in October 2006. None of the cases has been solved to date. Ms. Politkovskaya had shown that the alleged Chechen terrorist attack was in fact committed by the administration itself. Regarding the assassination of Mr. Nemtsov, some say that he was planning to reveal the number of deaths of Russian troops within Ukrainian borders despite the President's official statement that "there are no Russian troops in Ukraine".

From March 5, President Putin mysteriously ceased to appear in public without explanation. Several important events were cancelled, including the summit with the Kazakh President Nazarbayev, and many rumors, including poor health, circulated around the world. The President finally reappeared in public on the 16th and dismissed the speculation saying that "it would be boring without gossip". However, in view of the current situation, disappearing without explanation for so long has damaged the President's image both internationally and in Russia.

March 18 marked the first anniversary of Russia's unilateral annexation of Ukraine's Crimea. In a TV program aired on the 15th, President Putin said that he had been planning the annexation since before the referendum by Crimean residents, and that he was prepared to resort to nuclear weapons in the standoff with the West. He thus withdrew his previous statement that the annexation was based on the will of the Crimean residents, and thus ignoring the condemnation by the international community.

At times of extreme tension between countries, one of the cardinal rules is to avoid unnecessary provocation to minimize the risk of miscalculation by either side. Some believe that President Putin's hard-line comments are intended to consolidate the administration's domestic political base. But it should be noted that the West must strive to avoid conflict with Russia, whereas President Putin needs to recognize that the world is watching the extent of his capacity as a leader of whom the "true courage" could be required.

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