

## THE CURRENT STATE OF NISSAN'S RISK MANAGEMENT

Below we present some of our efforts to address Nissan's corporate risks.

### 1 Risks Related to Financial Market

#### 1) Automotive

##### 1. Liquidity

An automotive business must have adequate liquidity to provide for the working capital needs of normal day-to-day operations, ongoing research and development, capital investment needs for future expansion and repayment of maturing debt. Liquidity can be secured through cash and cash equivalents, internal cash flow generation and external funding.

As of the end of fiscal 2016 (March 31, 2017), Nissan's automotive business had ¥1,190 billion of cash and cash equivalents (compared with ¥944 billion as of March 31, 2016). In addition to cash, Nissan had approximately ¥510 billion of committed lines available for drawing as of March 31, 2017.

As for external funding, Nissan raises financing through several sources including bond and commercial paper issuance in capital markets, long- and short-term loans and committed credit lines from banks.

Nissan has a liquidity risk-management policy that is intended to ensure adequate liquidity for the business while at the same time ensuring mitigation of liquidity risks such as unmanageable bunched maturities of debt. In the policy, minimum liquidity requirements are defined taking into consideration several factors including debt maturity, upcoming mandatory payments—such as dividends, investments and taxes—and peak operating cash needs. We also benchmark our liquidity targets with other major Japanese corporations and global auto companies to ensure our assumptions are reasonable.

##### 2. Financial Market

Nissan is exposed to various financial-market-related risks, such as foreign exchange, interest rates and commodity prices. Although it is not possible to eliminate all the risks with the use of derivative products, Nissan does hedge select currencies and commodity price risks on an opportunistic basis to reduce financial market risks.

- Foreign exchange

Nissan's products are produced in 20 countries and regions and are sold in more than 170 countries and regions. Nissan's procurement activities for raw materials, parts/components and services are conducted in many countries. Nissan faces various foreign currency exposures that result from the currency of purchasing cost being different from the currency of sale to customers.

In order to minimize foreign exchange risk on a more permanent basis, Nissan is working to reduce foreign currency exposure by such measures as shifting production to the countries where vehicles are sold and procuring raw materials and parts in foreign currencies.

In the short term, Nissan may limit risks in foreign exchange volatility within a certain range by using derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

- Interest rate

The interest rate risk-management policy is based on two principles: long-term investments and the permanent portion of working capital are financed at fixed interest rates, and the nonpermanent portion of working capital and liquidity reserves are built at floating rates.

Nissan may hedge risks of interest rate fluctuation by using derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

- Commodity prices

Nissan purchases raw materials in the form of parts provided by the suppliers, as well as direct purchase, and it is exposed to the price fluctuation risks of raw materials, no matter whether purchased directly or indirectly.

For precious metals, which are used in catalysts, to minimize commodity price risk Nissan is making continuous efforts to reduce usage through technological innovation. In the short term, Nissan manages commodity price volatility exposure through the use of fixed-rate purchase contracts in which commodity prices are fixed for a period of time; Nissan may also hedge risks in commodity price volatility within a certain range by the use of derivative products in accordance with the internal policies and procedures for risk management and operational rules regarding derivative transactions.

- Marketable securities

Nissan may hold marketable securities for various reasons including strategic holding, relationship management and cash management. Nissan defines the authority for decision concerning such transactions within the internal policies and procedures for risk management. The company also takes measures for these risks including mandatory periodical reporting with fair value of such financial transactions.

### 3. Counterparties

Nissan does business with a variety of local counterparties, including sales companies and financial institutions in many regions around the world. Nissan is exposed to the risk that such counterparties could default on their obligations.

Nissan has established transaction terms and conditions for operating receivables in Japan and overseas based on credit assessment criteria. These criteria enable Nissan to take measures to protect such receivables and may include bank letters of credit and/or advance payment requirements.

As for financial transactions including bank deposits, investments and derivatives, Nissan manages its counterparty risk by using an evaluation system based on external credit ratings and other analysis. Nissan enters into such transactions only with financial institutions in each market that have a sound credit profile within their respective countries.

### 4. Pensions

Nissan has defined benefit pension plans mainly in Japan, the United States and the United Kingdom. The funding policy for pension plans is to make periodic contributions as required by applicable regulations. Benefit obligations and pension costs are calculated using many different drivers, such as the discount rate and rate of salary/wage increase.

Plan assets are exposed to financial market risks as they are invested in various types of financial assets including bonds and stocks. When the fair value of these assets declines, the amount of the unfunded portion of pension plans increases, which could materially increase required cash pension contributions and pension expenses.

As countermeasures to manage such risks, the investment policy of these pension plans is based upon the liability profile of the plans, long-term investment views and benchmark information regarding asset allocation of other global corporations' pension plans.

Nissan holds Global Pension Committee meetings on a periodic basis to review investment performance, manager performance and asset allocations and to discuss other issues related to pension assets and liabilities.

## 2) Sales Finance

### 1. Liquidity

Nissan operates majority-owned captive sales finance companies in Japan, the United States, Canada, Mexico, China, Australia, New Zealand, Thailand, Indonesia and India. In addition, Nissan is also a minority shareholder in a sales finance company (bank) in Russia. In these countries, banks and other financial institutions also provide financing solutions to Nissan's customers and dealers.

In Europe and other regions, RCI Banque and several other banks/ financial institutions are providing financing to Nissan's customers and dealers.

We monitor the liquidity of sales finance companies on an ongoing basis to ensure we have adequate liquidity to meet maturing debt and continue operations. According to its policy, Nissan targets to match maturity of liabilities with maturity of assets wherever possible. In some of the countries where Nissan operates, long-term capital markets are not developed and thus it is not always possible to be perfectly match-funded. Match-funding policy allows us to meet maturing debt obligations even in an environment in which we cannot raise additional debt due to the state of capital markets.

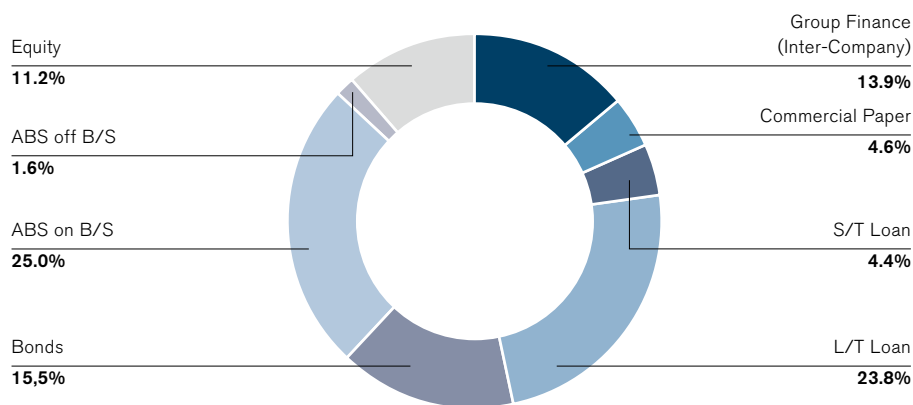
In addition to match-funding, we manage liquidity risk in sales financing through several measures including keeping adequate liquidity in the form of cash and unutilized committed lines, unencumbered assets (mainly vehicle loans and leases), liquidity support from auto operations to the extent we have excess cash in auto operations, diversified funding sources and geographical diversification of capital market access.

As of March 31, 2017, sales finance companies' liquidity (cash and unutilized committed lines) was approximately ¥549 billion. Additionally, we have a healthy mix of secured (26.6%) and unsecured and other (73.4%) funding sources, which support a stronger balance sheet and incremental liquidity through utilization of unencumbered assets.

The pie chart on the following page describes our diversified funding sources in the sales finance business.

During fiscal 2016, we were able to raise new funding through bank loans, asset-backed securities, asset-backed commercial paper, commercial paper and bonds reflecting our diversified access to financing instruments.

Sales Finance Business Funding Sources (As of March 2017)



## 2. Interest Rate Risk Management

The sales finance business is exposed to interest rate risks. Interest rate risk is defined as the potential variance in the earnings of an entity or the fair value of the portfolio that would result from a fluctuation in the general level of market interest rates where funds with differing fixed-rate periods or differing terms are financed and invested.

Nissan measures the risks by using the sensitivity analysis with various interest rate scenarios and determines the risk tolerance level. Nissan controls the interest rate maturities of both assets and liabilities to maintain the risks within an acceptable tolerance level.

The sensitivity analysis mentioned above uses statistical models, such as the Monte Carlo Simulation Method; however, the actual fluctuation of market interest rates and its impact may deviate significantly from the assumptions used in the models. Nissan enters into interest rate derivative financial instruments to maintain the potential variability of interest rates at the desired level of risk exposure. The main objective of these transactions is to mitigate the risks and not to pursue speculative profit maximization.

## 3. Credit Risks

Nissan is exposed to the risks of failure to recover the full value of financial receivables for its Auto credit and Lease business with retail customers and for its Dealer finance business, due to changes in the economic situation and credit quality of customers. Nissan manages the credit risks closely by establishing an effective screening and collection system and structure. Credit applicants are all subject to credit assessments of their creditworthiness under a detailed scoring system. Based on the information directly obtained from applicants and from credit bureaus, loan authorization is made in a comprehensive manner by considering the following points: applicant's credit history; applicant's capacity to pay, which is estimated by debt ratio, payment to income ratio and disposable income; applicant's stability; and loan conditions including the loan collateral, loan advance and payment terms. In addition to carrying out this screening process, whenever required, Nissan takes into account qualitative information by conducting field visits to customers or referring to past business records with Nissan in accordance with characteristics of regional business practices and risks.

Dealer finance for inventory vehicles is authorized on the basis of an internal rating system that takes into account the financial position of dealers, and if necessary, personal guarantees and/or mortgage collateral are taken in pledge in addition to pledges of inventory vehicle collateral. These scoring models are regularly reviewed and revised to keep them adequate in actual practice.

In some regions and products, Nissan also offers different pricing depending on the applicant's credit score to compensate for the risks.

As a matter of accounting policy, Nissan maintains an allowance for doubtful accounts and credit losses adequately to cover probable losses. Nissan makes best efforts to recover the actual losses from bad debt accounts as quickly as possible by taking necessary actions, including flexible and effective organization change for collection and utilization of third-party collection services.

#### 4. Residual Value Risks

Vehicles on operating leases and some balloon-type credits, where Nissan is the lessor, are guaranteed end-of-term residual value by Nissan. Nissan is therefore exposed to the risk that the sale value of the vehicle could fall below its contractual residual value when the financed vehicle is returned and sold in the used-car market at the end of the contract term.

To mitigate these risks, Nissan objectively sets contractual residual value by using the future end-of-term market value estimation by third parties, such as the Automotive Lease Guide in North America, and the estimation from statistical analysis of historical data on the used-car market in Japan. To support used-car market value Nissan takes several strategic initiatives, including control of sales incentives for new car sales promotion, fleet sales volume control and introduction of a certified pre-owned program. As a matter of accounting policy, Nissan evaluates the recoverability of carrying values of its vehicles for impairment on an ongoing basis. If impaired, Nissan recognizes allowance for potential residual value losses in a timely and adequate manner.

## 2 Risks Related to Business Strategies and Maintenance of Competitiveness

### 1) Product Strategy

To secure profitability and sustainable growth based on the future product lineup plan, as part of its product strategy developing process Nissan monitors the impact of various risk scenarios—such as global market changes and demand deteriorations—on its future profitability based on the plan.

Risk Scenario Examples:

1. Drastic decline of total global demand
2. A demand shift between vehicle segments drastically faster than Nissan's midterm planning assumptions
3. A demand shift from mature markets to emerging markets drastically faster than Nissan's midterm planning assumptions

The company periodically monitors the impact of these scenarios to secure future profitability and sustainable growth, as well as updating its future lineup plan periodically based on the results. To improve the robustness of its product lineup against these risks, the company's main approach is to take the following countermeasures when planning its product strategy:

- Expand availability of individual products across markets to mitigate

the risk of single-market demand fluctuations.

- Increase volume and efficiency per product through a consolidation and rationalization of the portfolio to lower the breakeven point and thereby reduce the profit risk of global total industry volume (TIV) declines.
- Prepare a more balanced product portfolio meeting needs in a broader range of markets and segments, reducing reliance on specific large markets.

### 2) Quality of Products and Services

Nissan made a companywide effort toward "Enhancing Quality," one of the six areas of focus defined by Nissan Power 88, its midterm business plan through fiscal 2016. Under this plan, actions were carried out with numerical targets for the following areas:

- Product quality: Quality of Nissan's products based on the customer's actual experiences as an owner of the vehicle
- Perceived quality and attractiveness: Customers' impressions of a vehicle's quality when they look at and touch it in a dealer's showroom

For example, the target for "product quality" is to attain the top level in indicators based on external third-party surveys. In order to achieve the target, internal indicators for each model correlating with these external indicators have been established. Progress of all quality improvement activities is monitored on an ongoing basis with those internal indicators.

With respect to new model projects, in order to achieve quality targets, milestone meetings are held for processes from design, production preparation and production, at which key check points are confirmed, such as achievement of quality targets, prevention of recurring problems, and adoption of measures for potential risks related to new technology and mechanisms and design changes. Commercial production can be started after confirmation at the Start of Production (SOP) Judgment Meeting, which confirms all issues are solved and quality targets can be achieved. The final decision that the model can be sold is made at the Delivery Judgment Meeting after confirmation of the quality of commercial production and preparedness for service/maintenance.

Nissan is implementing thorough quality checks before new model launches. Nissan is advancing quality improvement activities after launch as well by constantly gathering quality information from markets and promptly deploying countermeasures if problems arise. In case safety or compliance

issues do occur, necessary actions such as recalls are implemented with close cooperation with the marketing side based on a management decision reached by an independent process. Incidents are thoroughly investigated and analyzed, and the lessons are applied to existing or upcoming models to prevent a recurrence.

In addition to these activities, such as quality assurance for new model projects and quality improvement activities on a daily basis, the company has introduced and operates a "Quality Risk Management" framework. The framework represents a higher-level system to ensure successful quality management for both ongoing and future projects. Appraisal involves an objective evaluation of whether risk exists and the level of such risk for the company and the assignment of responsible persons based on the level for follow-up activities. These processes are implemented by the Quality Risk Management Committee, chaired by an executive tasked with heading this activity, twice a year.

### 3) Environment, Climate Change

The automotive industry is affected globally by various regulations related to the environment and safety, such as exhaust emissions, CO<sub>2</sub>/fuel efficiency, noise, chemical substances and recycling, and these regulations are getting more stringent year by year. To comply with these regulations, meet society's expectations and minimize its impact and reliance on natural capital, Nissan formulates an environmental strategy based on materiality assessments of management risk factors, analyzing the company's potential issues and opportunities and identifying issues that are crucial for both Nissan and its stakeholders.

In this context, Nissan believes that one effective solution from a long-term perspective will be the widespread use of zero-emission vehicles. Nissan started sales of Nissan LEAF, the world's first affordable, mass-produced EV, in 2010. The Renault-Nissan Alliance has a goal of becoming a leader in zero-emission vehicles and is considering partnering with national and local governments to promote zero-emission mobility and to help build a supporting infrastructure.

Nissan will help to reduce CO<sub>2</sub> emissions by continuously developing technologies to improve fuel efficiency in internal combustion engines and bringing them widely into the market. In particular, the company will promote highly fuel-efficient, low CO<sub>2</sub> emitting vehicles equipped with such technologies as its hybrid system, fuel efficient direct injection engine and continuously variable transmission (CVT).

Stricter controls on environment-impacting substances are being implemented in countries around the world. In accordance with a globally uniform policy on reducing the use of environment-impacting substances, Nissan is strengthening its management of environment-impacting substances, adhering to a well-planned schedule for their reduction and advancing the use of alternative substances. In 2005, the company drew up policies regarding the use of substances scientifically recognized as being hazardous or carrying high hazard risks, as well as those identified by NGOs as dangerous. In 2007, these policies became unified global standards for Nissan, restricting environment-impacting substances to a stricter degree than the domestic laws of the countries and regions where it operates. Based on this approach, Nissan has developed internal engineering standards restricting the use of designated substances. The standards identify the chemicals whose use is either prohibited or controlled, and they are applied in selecting the materials, parts and articles for Nissan vehicles from the stage of initial development.

Demand for mineral resources and fossil fuels has steadily increased in response to the economic growth of emerging countries. In addition to promoting reduced use of virgin natural resources through resource-saving and resource-recycling measures, it is becoming important to procure natural resources that have a lower impact on the Earth's ecosystems, not only from the standpoint that these resources are limited but also considering the wide-ranging effects that resource extraction has on ecosystems. Nissan has raised to 25% the target for the usage of recycled material per new vehicle for which production begins in fiscal 2016. To achieve this, the company promotes design centered on the vehicle lifecycle, reduces the use of scarce resources, reduces waste and promotes expanded use of recycled materials.

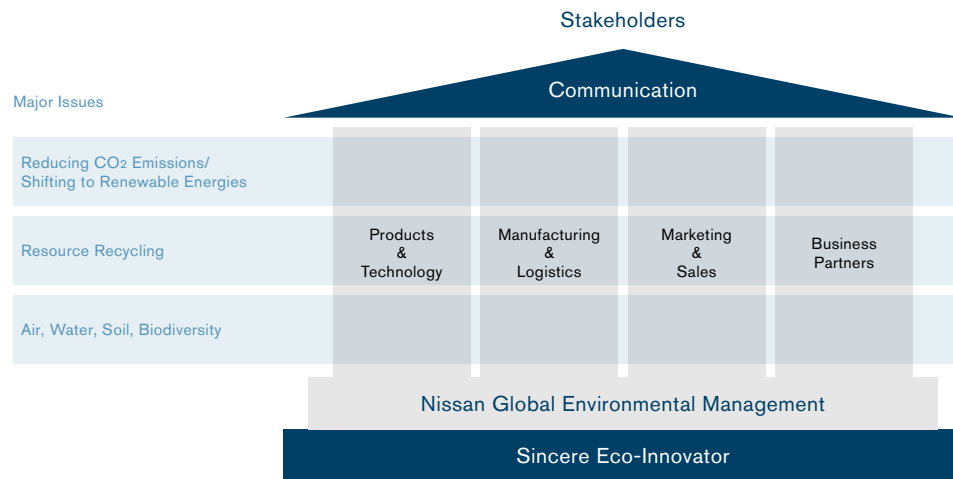
As the global population increases and becomes more urban, it is becoming ever more important to improve air quality in cities. Nissan promotes the use of EVs, which do not produce exhaust emissions during operation, to national and local governments as one way of successfully dealing with the various factors specific to different regions.

The issue of water resources is ever more serious with the retreat of glaciers and rainfall fluctuation due to climate change, in addition to increasing water use due to the growing world population and economic development. Nissan, which uses water resources in its production process, seriously recognizes the importance of this issue and continuously works to preserve water resources at plants around the world, such as by reducing consumption and recycling water discharged in the production process.

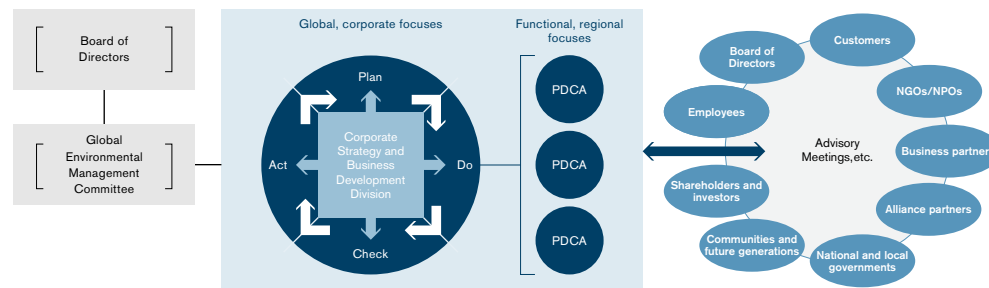
The purchasing divisions of Nissan and Renault carry out supply-chain management in a manner consistent with *The Renault-Nissan Purchasing Way*, a booklet outlining policies for dealing with suppliers, and the *Renault-Nissan CSR Guidelines for Suppliers*. With respect to environmental issues, Nissan has set standards for the efforts of its automobile parts and material suppliers in the form of the Nissan Green Purchasing Guidelines. In fiscal 2012 the company added a number of environment-related criteria in selecting its suppliers to coordinate its efforts to reduce environmental impact throughout the value chain; Nissan now asks suppliers to furnish data regarding their CO<sub>2</sub> emission levels and energy use and also consider their management of environment-impacting substances, recycling of resources and water-conservation efforts.

Nissan is working to achieve guidelines and targets as part of its corporate social responsibility as well as to comply with laws and regulations. In order to promote this environmental management on a global basis, the Global Environmental Management Committee (G-EMC), including a board member as co-chair, meets twice annually to determine with corporate officers chosen depending on the issues being discussed the overall policies and the content of reports to be put before the Board of Directors. The Corporate Strategy and Business Development Division makes decisions on activity targets for each department and region and conducts effective follow-up of the progress based on "plan, do, check, act" (PDCA) management.

Nissan's Framework for Global Environmental Management



Nissan's Global Environmental Management Organization



#### 4) Compliance and Reputation

Nissan produced the Nissan Global Code of Conduct for all employees of the Nissan Group worldwide. To ensure thorough understanding of the code, training and education programs such as e-learning are provided and the company's compliance with laws and ethical standards is monitored by regional and local compliance committees, which report to the Global Compliance Committee. Nissan has also implemented a globally integrated whistleblowing system. This allows employees to report suspected compliance issues to Nissan's management.

Nissan also has created sets of internal regulations globally covering the prevention of insider trading, personal information management, information security and prevention of bribery and corruption. Nissan makes efforts to prevent noncompliance and reputation risk to the company by implementing various education and training programs.

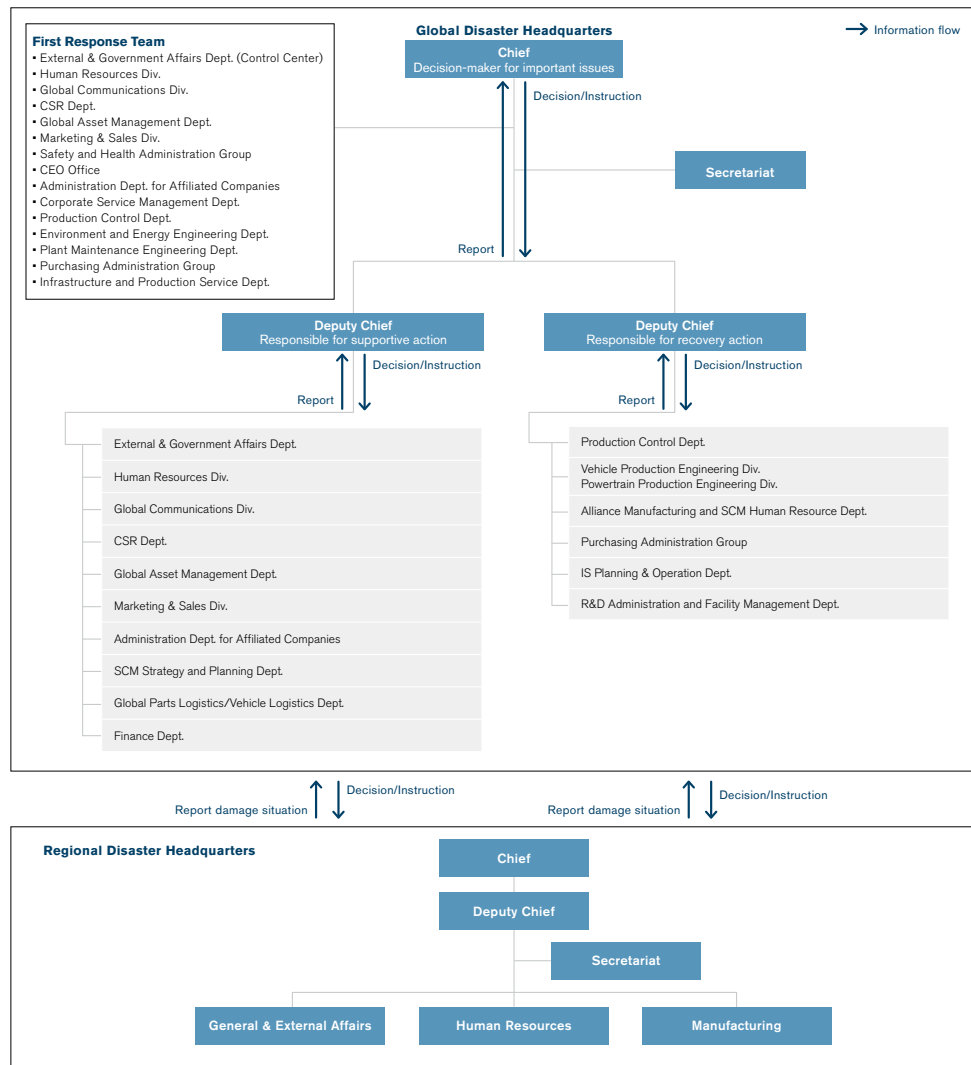
### 3 Business Continuity

#### 1) Natural Disaster Measures

In case of an earthquake measuring 5-upper or higher on the Japanese seismic intensity scale or other natural disasters causing heavy damage affecting Nissan's business activities, a First Response Team (organized by the main units of the Global Disaster Headquarters) will gather information and decide actions to be taken based on the information. If necessary, the Global Disaster Headquarters and Regional Disaster Headquarters will be set up to gather information about employees' safety and the damage situation of facilities and to work for business continuity.

At the same time, Nissan is working with suppliers to develop a Business Continuity Plan (BCP). This includes assessment of the priority of work by each and every function and development of countermeasures to continue priority work. The BCP will be reviewed annually in the process of the PDCA cycle.

Organization for Disaster Recovery (Earthquake)



#### Policy and Principles in Case of Earthquake:

1. Human life as the first priority (utilization of employee safety confirmation system)
2. Prevention of secondary disaster (in-house firefighting organization, stockpiling, provision of disaster information)
3. Speedy disaster recovery and business continuity (measures for hardware, improvement of contingency plan and development of BCP)
4. Contribution to local society (cooperation/mutual aid with neighboring communities, companies, local and central governments)

The Global Disaster Headquarters and Regional Disaster Headquarters conduct simulation training assuming a large earthquake to prepare for a catastrophe. The drills test the effectiveness of this organization and contingency plan and identify the issues to be improved. The contingency plan is reviewed based on the feedback.

In the aftermath of the March 11, 2011, disaster, Nissan's periodic simulation training helped to ensure the smooth launch of its Global Disaster Headquarters and Regional Disaster Headquarters on the initiative of the First Response Team. This also helped to complete confirmation of employees' safety and checks on the extent of the damage.

Additionally, based on the policy of contribution to local society, the company reacted rapidly to provide rest space for people who could not return home on March 11 and to support damaged areas.

At the stage of business recovery, the Disaster Headquarters and the project teams of each function continuously shared up-to-date information and were addressing the issues for production and business recovery with companywide cooperation. Effective communications supported the quick recovery of Nissan's total supply chain, including parts supply, production, logistics, sales and services.

The response to the March 2011 disaster was reviewed during fiscal 2011 to identify issues that came to light on a function-by-function basis and to consider countermeasures. In March 2012, simulation training was conducted based on a new scenario incorporating the review findings, and the new measures were verified.

In fiscal 2012, Nissan conducted simulation training based on a scenario of a combined Tokai, Tonankai and Nankai earthquake, confirming its preparedness for issues that came to light during drills held the preceding fiscal year, such as responses to wide-area disruptions to its logistics network and fuel shortages.

From fiscal 2013 to fiscal 2015, simulation training was based on a high-risk scenario of an earthquake directly beneath the Tokyo metropolitan area based on the latest estimates from the Cabinet Office. This disaster would result in widespread power cuts, limited communications and other problems. In conducting this simulation training, the company was able to confirm methods of information exchange and cooperation between relevant departments. Departments also worked together to consider how to respond to inherent issues of individual departments as well as those that affected multiple departments.

Additionally, Nissan has formed groups of employees who live near work sites and would be able to get to those sites if a disaster struck on a nonwork day. The company held training for these employees to prepare to set up Disaster Headquarters on nonwork days.

In fiscal 2016, Nissan considered how to respond to a situation similar to the April 2016 earthquakes in Kumamoto Prefecture. The company conducted initial response training based on a scenario in which an active fault earthquake takes place at night or on a holiday. Regular annual simulation training was based again on a scenario of three simultaneous earthquakes. The company identified further issues arising when the affected area is large and is working to address these.

The company will enhance its disaster measures by applying the PDCA cycle to training based on newly emerging issues and recent changes in the government's anticipated seismic scale announcements.

In the face of its expanding global operations and the need to enhance the natural disaster response of its overseas facilities, in fiscal 2012 Nissan began undertaking horizontal development of best practices at each facility and inviting overseas personnel to observe the simulation training held in Japan. In addition, the same year it started communication training among



its overseas facilities based on scenarios of major disasters in various regions of the world. This training is held regularly four times a year.

In fiscal 2013, Nissan developed visualization tools for assessing the effectiveness of disaster countermeasures in the countries where it operates. Based on the tools, Nissan conducts a PDCA cycle program on an ongoing basis to increase its global disaster preparedness. The Global Headquarters building, where the Disaster Headquarters for Japan has been set up (built in August 2009), has an earthquake-resistant structure using vibration-controlling brace dampers. Safety is assured even in the case of a maximum-level earthquake at the site.

## 2) Pandemic

In response to the outbreak of H1N1 type influenza in April 2009, Nissan established a global policy for infection prevention. Each region has organized a response team and has promoted concrete countermeasures based on the policy. Infection status can be monitored globally thanks to firmly developed reporting lines between the global response team and each regional team.

Nissan has promoted countermeasures based on three basic principles stated in the global policy, which are:

1. Priority on employees' health and lives
2. Prevention of the spread of infection
3. Continuity of business operation

As specific actions, Nissan established the "guidelines for employees' action," which stipulated actions to be taken by employees, sections and companies, and kept employees informed.

Nissan also developed a BCP for each business section, with several triggers to invoke the BCP depending on the infection ratio, to maintain business continuity even under a high infection situation.

Nissan will keep prepared for contingencies like avian flu through its PDCA cycle, such as by updating response team members and the BCP, carrying out educational activities for infection prevention and stockpiling sanitary and medical goods.

## 3) Countermeasures for Production Continuity Risk

Nissan's production division has dealt with various risks related to the three elements of production, as listed in the chart on the right. For natural disasters, the company has identified the measures needed to restart production within its established goal of two weeks following a large-scale disaster. Over the years Nissan has carried out continuous prevention countermeasures to physical infrastructure (quakeproofing and reinforcement of buildings and other facilities), maintained an operations recovery manual to shorten recovery time and regularly executed BCP simulation drills. The company is also strengthening the resilience of its global production network, such as by establishing a BCP for parts exports to enable continued operations at overseas plants.

To prepare for the risks associated with its worldwide expansion of production, Nissan has designated critical facilities around its global network that would play major roles in ensuring business continuity. The company is working to bolster preventive maintenance by ensuring thorough knowledge of globally standardized facility maintenance guides. At the same time, to minimize impact on production, Nissan is drawing up backup plans for implementation in the event of a significant disruption.

In addition, it is vitally important to manage risks associated with parts procured from Leading Competitive Countries (LCCs) in order to expand markets. Nissan has been conducting risk assessment before making sourcing decisions and providing support for improvement activities after sourcing. As part of preparations for production, the company carries out assessments of quality and of quantity management processes. In the production phase, quality checks are implemented at key points in the production and logistics process to prevent the production and utilization of imperfect parts. The company also works to reinforce measures identifying the root causes of issues in order to secure global market expansion and growth. To efficiently and effectively promote these activities, Nissan is globally standardizing tools and practices for improving processes and assessments. Through organizations to manage supplier risk in major regions, including North America, Europe, China, Japan, Thailand, India and Brazil, Nissan is reinforcing efforts to prevent risks associated with parts supply.

3 elements of production Risk factor	HR/Workforce	Purchased parts/ Raw materials	Facilities
Natural disasters (earthquakes)	<ul style="list-style-type: none"> <li>Reinforcement of office buildings (completed)</li> <li>Development of earthquake response manual, implementation of evacuation drills (once/year)</li> <li>Conducting of disaster-prevention drills (once/year or more)</li> </ul>	<ul style="list-style-type: none"> <li>Assessment of earthquake preparedness of major suppliers located in high quake-risk areas (FY08)</li> <li>Planning to adopt damage reporting system on web base (FY10)</li> <li>Confirmation of BCPs to be implemented at time of disaster by suppliers in high quake-risk areas (FY11)</li> <li>BCP for parts exports to continue production at overseas plants (FY12)</li> </ul>	<ul style="list-style-type: none"> <li>Reinforcement of buildings and machinery (continued)</li> <li>Regular audits of each business facility</li> <li>Review of facility recovery manual (FY11)</li> </ul>
Fire	<ul style="list-style-type: none"> <li>Risk assessment based on Fire Prevention Evaluation System (F-PES) (once/year)</li> </ul>	<ul style="list-style-type: none"> <li>Same as on the left</li> </ul>	<ul style="list-style-type: none"> <li>Same as on the left</li> <li>Revision of equipment standard based on the assessment result</li> </ul>
Workplace injury	<ul style="list-style-type: none"> <li>Risk assessment based on Safety Evaluation System (SES) (once/year)</li> <li>Assessment for health and safety management system (once/year)</li> </ul>	<ul style="list-style-type: none"> <li>Same as on the left</li> </ul>	<ul style="list-style-type: none"> <li>Same as on the left</li> </ul>
Pandemic	<ul style="list-style-type: none"> <li>Development of flu response manual (FY08)</li> </ul>	<ul style="list-style-type: none"> <li>Requested suppliers to develop response manual coordinated with Nissan</li> </ul>	—
Demand fluctuation	<ul style="list-style-type: none"> <li>Backup from other Nissan plants (as needed)</li> <li>Backup from other companies (as needed)</li> <li>Employment of short-term employees (as needed)</li> </ul>	<ul style="list-style-type: none"> <li>Regular check of demand projection and supply capacity; implementation of measures</li> </ul>	<ul style="list-style-type: none"> <li>Installation of flexible manufacturing system (completed)</li> <li>Regular check of demand projection and production capacity; implementation of measures</li> <li>Development of complementary production system for main powertrains</li> </ul>
Machinery breakdown	—	—	<ul style="list-style-type: none"> <li>Sharing of past incident experiences and reflection in preventive maintenance</li> <li>Reflection in equipment standards</li> <li>Bolstering of management at critical facilities</li> <li>Enhancement of preventive maintenance by ensuring thorough knowledge of facility maintenance guides (checking periods, parts and methods)</li> </ul>
Electric power shortage	—	—	<ul style="list-style-type: none"> <li>Thoroughgoing energy-conservation efforts</li> <li>Flexibility in plant operations and working hours in response to requests from the government or power companies</li> </ul>
Expansion of LCC-manufactured parts	—	<ul style="list-style-type: none"> <li>Assessment of <i>monozukuri</i> ability before supplier sourcing and support for improvement activities after sourcing; assessment of quality and of quantity management processes at production preparation phase</li> <li>Quality check at mass-production phase (action "Gate1-3") and preliminary discussion of backup suppliers to reduce supply risk</li> <li>Bolstering of supplier risk-management teams in key areas (FY13)</li> </ul>	—
Decrease of skilled workers/experts	<ul style="list-style-type: none"> <li>Planning and implementation of training program at each plant to develop skilled workers (FY10)</li> <li>Global development of human resources through the Global Pilot Plant program (FY11)</li> <li>Development of experts to teach technical skills (planning and implementation from FY12)</li> </ul>	—	—

#### 4) Supply-Chain Continuity

To minimize risk in the supply chain, Nissan has prepared policies for both major disasters and daily risks, following up on their execution.

- Promotion of BCPs
  1. Identification of risks and drawing up of recovery plans  
Identify risks from natural disaster and single-source risks and work with suppliers to prepare and maintain up-to-date production recovery plans for suppliers in risk areas and high-risk components.
  2. Visualization of the supply chain  
Create and maintain an updated supply-chain database including suppliers, their components and their materials to quickly understand the damage to suppliers when a major earthquake strikes, in order to provide those heavily affected with rapid support and to ensure early resumption of Nissan vehicle production. In fiscal 2016, Nissan adopted a cloud-based system to enable updates to the database as necessary.
  3. Improvement of BCPs  
Continue visits to suppliers, introducing benchmark examples. In fiscal 2016, Nissan conducted BCP Checklist surveys for assessing supplier BCP systems and activities, communicating and following up on the results. The surveys added floods, labor strikes and terrorist risk to the existing categories of earthquakes and tsunamis and expanded the scope of suppliers questioned on a global basis.
  4. Assessment of suppliers' financial risk  
Conduct financial assessment of suppliers globally, including those for Renault, on a daily basis and communicate closely to ensure maintenance of sound business.
  5. Reflection on response to Kumamoto earthquakes  
Nissan analyzed its response to the earthquakes that took place in Kumamoto Prefecture in April 2016. The company has bolstered its communication with suppliers at night and on holidays and improved its management of inventory in transit, particularly components whose delivery would take time to restart. It has also visited production plants for suppliers estimated to have high earthquake risk as well as suppliers with high risk related to component substitution plans, confirming that countermeasures are in place.

## 5) Risk Financing and Loss Prevention

### 1. Global Insurance Management Policy

Nissan manages hazard risk on a global basis with risk-management techniques that combine self-retained risk with external risk transfer via insurance.

In order to minimize the cost of risk, Nissan adheres to the following global insurance management policy. This policy has provided appropriate coverage for damage resulting from the unpredictable disasters that the world has seen in recent years.

- Predictable risks with low impact and high frequency:  
Retain risks up to an acceptable level on a consolidated basis by the company.
- Unpredictable risks with low frequency and high impact or shock value:  
Risks whose financial impact may exceed the acceptable level of self-retention are transferred outside the company via insurance.

### 2. Global Insurance Programs

In order to minimize the cost of hazard risks and manage risks occurring globally and interdependently in a concentrated manner, global insurance programs have been established for main lines of insurance. The Finance Department in the Global Headquarters decides insurance conditions and structures and negotiates directly with insurance companies for these global programs. The insurance companies are important strategic partners, and they are thus selected in consideration of risk spread and financial solvency.

The following risks are covered through global programs.

- Property damage and business interruption by accidents:  
The program covers risks not only for property damage but also for business interruption and contingent business interruption due to accidents, taking into consideration the global expansion of the supply chain for products and parts. Nissan identifies important suppliers globally and arranges insurance for risks caused by interruption of the supply chain. Coverage limits are determined based on the probable maximum loss amount measured by third-party experts and the risk appetite of insurers.

Nissan achieved further improvement and optimization of insurance conditions by negotiating with insurance companies together with its Alliance partner Renault from fiscal 2011. Nissan is also studying extending the program to new Alliance partner Mitsubishi Motors Corp.

- Transportation and storage of vehicles and products for sales:

This program covers risks relating to transportation and the supply chain for parts and products globally. By covering risks spread geographically under a global program, Nissan can manage loss data on a global basis and ensure stability of insurance costs.

In fiscal 2011, this program was combined with Renault's program for negotiating with insurance companies to achieve best possible results utilizing synergies of scale. Nissan is also studying extending the program to new Alliance partner Mitsubishi Motors.

- Liability (including product liability and liability for unanticipated accidents during operations or caused by owned or managed facilities [general liability]):  
To manage this risk, Nissan has implemented insurance programs suitable for the legal systems and practices in each region. The programs are led by the Global Headquarters in order to implement a globally uniform strategy with consistent worldwide insurance coverage and to achieve lower insurance costs.

### 3. Utilization of Group Insurance Company

For the purpose of more efficient self-retention on a consolidated basis for insurance programs, Nissan utilizes an insurance company of the Nissan Group.

Utilization of a Group insurance company enables the following:

- Company can reduce insurance costs by obtaining the minimum necessary insurance.
- Each Group company can obtain necessary coverage.
- Company can gather and analyze loss data below self-retained limit.

### 4. Loss Prevention Activities

Nissan conducts loss prevention activities to improve loss results and reduce the cost of premiums on an ongoing basis. Since the global insurance programs have been introduced, loss prevention activities have been promoted more actively and globally to maintain low premium rates. Examples of Nissan's loss prevention activities include conducting risk-engineering surveys and obtaining recommendations for safety from third-party experts, creating manuals for actions in the event of typhoons and constructing hail nets to prevent hail damage.