

## Japan America Society of Chicago

## **"Japan: Road to Recovery** -Challenges and Opportunities"

**Federal Reserve Bank of Chicago** 

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## "Japan: Road to Recovery -Challenges and Opportunities"

## **Presentation Index**

- The Great East Japan Earthquake: Impact on Japan's Economy
- Japan's Competitive Strengths
- The Japanese Market: Trends & Opportunities



# The Great East Japan Earthquake: Impact on Japan's Economy

#### The Great East Japan Earthquake



#### (1)The Great East Earthquake, March 11 (a) Magnitude 9.0

Fifth largest earthquake on record following the 1960 earthquake in Chile (M9.5) and the 1964 earthquake in Alaska (M9.2).

#### (b) Tsunami: 46 feet and higher

Tsunami reached a height of 118 feet.

#### (c) Nuclear Accident Occurred in the Fukushima Dai-ichi Nuclear Power Plant

## (2) More than 22,000 fatalities or missing

- (a) Fatalities: 15,534
- (b) Missing: 7,092
- (c) Injured: 5,685
  - As of July 5
- (d) Evacuated: 112,405 As of June 16

Fatalities of the Great Hanshin-Awaji Earthquake in 1995: 6,436



#### Support for Japan

#### (1) International Support

More than 150 countries, nearly 40 international organizations, and 1,500 NGOs have offered assistance

#### (2) U.S. Support

(a) As Japan's most important ally, the U.S. has sent

 Ships and aircraft for search and rescue
 Needed items such as food, water, blankets,
 and medical supplies
 Nuclear experts

(b) US Troops in Japan are conducting "Operation *Tomodachi"* or "Friendship" and engaging in the above mentioned activities.





(c) Many U.S companies, organizations, and individuals have also donated to Japan.

#### Ongoing Efforts in the Affected Area

## (1) Search for missing and debris removal

- -28 countries, regions, and institutions sent rescue teams
- -U.S. Army conducts "Operation Tomodachi"
- -Over 100,000 troops from Self Defense Forces

#### (2) Support for evacuated people

- 112,405 evacuated (as of June 16)
- Completion of more than 33,000 emergency temporary housing, and nearly 11,000 other housing began reconstruction (as of June 28)
- Helping people to find jobs

#### (3) Rebuilding essential services

Electricity

Blackout: 2.7 million homes (March 11)  $\rightarrow$  300 (May 27)

Gas

No gas: 420,000 homes (March 11)  $\rightarrow$  Zero (May 6) <u>Water</u>

No water: 56,000 homes in 3 prefectures (June 24)

#### Reconstruction and Recovery: (1) Tohoku Expressway

- The Tohoku Expressway is a transport and commercial artery which connects Tohoku and Kanto regions. Numerous factories are located along this route.
- 347 km out of 675 km of the expressway were destroyed in the earthquake on March 11, but traffic restrictions were lifted on March 24th, following the completion of emergency restoration measures.



#### Reconstruction and Recovery: (2) Railroads

- None of the 26 trains operating at the time of the earthquake derailed, nor was there any serious damage to elevated bridges and stations, or collapse of tunnels.
- > The entire Tohoku Shinkansen resumed operation on April 29th.



#### Reconstruction and Recovery: (3) Sea Ports

- Quays of all major Pacific ports that were hit during the quake from Aomori to Ibaraki became useable by May 24th.
- > The sea ports damaged by the tsunami are gradually recovering functionality.



#### Reconstruction and Recovery: (4) Airports

- The reconstruction of Sendai Airport which was badly damaged by the tsunami showed surprisingly rapid progress thanks to the cooperation between the US Armed Forces and Japanese Self - Defense Forces. The entire runway was restored and back in service by March 28th.
- Passenger flights from Haneda Sendai and Osaka (Itami) Miyagi resumed operations on April 13th, one month after the earthquake.



Sendai airport damaged by the tsunami as of March 13<sup>th</sup>.

The first landing at Sendai airport since the earthquake on April 13<sup>th</sup>.

## Fukushima Daiichi Nuclear Power Plant

Top Priority: Bringing the Crisis Under Control

(1) Cool down four reactors and spent fuel pools

(2) Prevent the spread of radioactive material

(3) Monitoring and decontamination of radioactive material

The Fukushima event is temporarily rated at <u>Level 7</u> on the International Nuclear and Radiological Event Scale (INES).

However, the amount of discharged radioactive material is approximately 10 percent of the Chernobyl accident, which was assessed at the same level.

Tokyo Electric Power Company (TEPCO) expects that it will take 6-9 months to bring the reactors into cool shutdown.





## Dose of radiation in the world's major cities

#### The recent environmental radioactivity level of Tokyo is lower than the level in other major cities

City	Dose of Radiation (uSv/h)	Date of measurement	Referring Website
Tokyo	0.063	6/10	http://ftp.jaist.ac.jp/pub/emergency/monitoring.tokyo -eiken.go.jp/ monitoring/hourly_data.html
NewYork	0.094	5/31	http://digistar.com/boston/
Paris	0.04-0.09	6/10	http://www.irsn.fr/FR/Documents/france.htm
Berlin	0.069-0.084	6/10	http://odlinfo.bfs.de/
Singapore	0.08	6/10	http://app2.nea.gov.sg/index.aspx
HongKong	0.07-0.14	6/10	http://www.hko.gov.hk/radiation/ermp/rmn/applet/ map/rmn_hourly_e.htm
Beijing	0.065	6/10	http://haq.mep.gov.cn/gzdt/
Таіреі	0.061	6/10	http://www.trmc.aec.gov.tw/utf8/eng/
Seoul	0.110	6/10	http://www.mest.go.kr/web/42083/iernet/list.do

Source: Japan National Tourism Organization(JNTO)



## Ensuring Safety

#### (1) Risks for other countries

There are no risks so far to people living in other countries from radioactive material released into the atmosphere from the Japanese nuclear power plants (WHO)

#### (2) Ports and Airports

- Government announces radioactivity level at major ports and airports twice a day

- Japanese government has set areas within a radius of thirty km of Fukushima Daiichi nuclear complex as restricted flight areas

#### (3) Food from Japan

- Japanese Government inspects radiation dosages every day, and prohibits the distribution and consumption of food that fails to meet stringent criteria

- U.S. CBP and FDA have increased surveillance of regulated products from Japan

#### (4) Water

WHO has determined that drinking tap water in Japan poses no immediate health risk. (WHO, March 25, 2011)

## (5) Embassies of the United States, France, Russia all returned their personnel to Japan.

## Ensuring Safety of Foods from Japan Three Measures Taken

Crop harvest/production is not conducted in affected areas

(1) Japan has set 20 km (12.5 miles) radius of the plant and other designated areas → no-entry zone, planned evacuation zone.
(2) Other areas of the 30km (18.75 miles) radius of the plant (as a general rule) → emergency evacuation preparation area.
(3) All fishing within 30km radius of the plant is prohibited.

## 2 Intense sampling of food/beverages in Japan

 $\rightarrow$  the Japanese government immediately ordered food not to be

distributed if the food fails to meet provisional regulation.



US CBP and FDA are intensively monitoring food/beverages from Japan

Japan, to prevent contamination, inspects radioactivity in food every day, and restricts distribution of food that fails to meet provisional regulation values.



Source: Ministry of Health, Labour and Welfare

# ... Not to Distribute (as of July 1, 2011) \* Fukushima Prefecture Example: Raw milk Non-head type leafy vegetables (e.g. spinach) Head type leafy vegetables (e.g. cabbage) \* Ibaraki, Tochigi, Chiba, Kanagawa Prefecture Tea

• • Restricts Have Already Lifted

#### \* <u>Ibaraki Prefecture</u>

- Spinach
- \* <u>Tochigi / Gunma Prefecture</u>
- Non-head type leafy vegetables (e.g. spinach)
- \* Chiba Prefecture
- Spinach, Parsley, Celery

## Safety of Marine Products



• Over provisional regulation values: **59** samples

Below provisional regulation values: **853 samples** (As of July 1)

<u>All 59 samples over provisional regulation</u> <u>values are found in Fukushima or the north</u> <u>part of Ibaraki prefecture</u>. (Sandlance, Land locked Salmon etc. )

<u>Fishing of these marine species</u> is not conducted in Fukushima prefecture and Ibaraki prefecture

<u>No fishing</u> is conducted in Fukushima prefecture

CBP (Customs & Border Protection) is intensively monitoring goods from Japan

• FDA is conducting the following measures. (1) Prohibits any food from importation if the distribution of the food is prohibited by the Japanese government (unlikely to be appear at US ports) (2) Automatically detain certain foods from certain areas around nuclear plant. FDA will not release unless the food has proven to be in compliance. [e.g. leafy vegetables from Fukushima, Ibaraki and Tochigi will be detained automatically. ] (3) Intensive sampling and monitoring of food from Japan • FDA has found no samples inspected that contains unsafe levels of radionuclides so far. (as of June 29) "FDA recognizes that the government of Japan is taking steps to address this issue and FDA will continue to provide support to their efforts."

>>> Please visit <u>www.fda.gov</u> for more information.



## Safety of Cosmetics Manufactured in Japan

- Japan Cosmetic Industry Association announced that cosmetic products manufactured in Japan are safe based on available data as shown below.
- 1. Cosmetics are manufactured in indoor environments highly controlling extraneous substances and particles. The possibility that radioactive substances in the atmosphere would affect the production process is extremely low.
- 2. Provided that the water with acceptable standard level of radioactive substances applied to drinking water designated by the Ministry of Health, Labor and Welfare is used in all manufacturing processes, and that the product is used every day for one year, the total amount of radiation exposure from the cosmetic product would be no more than 7.8 microsieverts per year, which has no effect on human health.
- 3. The Japanese Government states the present level of radioactive substances in water supply does not pose any problem when used in contact with human skin by hand washing, shampooing, bathing, etc. The same can be said for cosmetic products, which are mainly applied to the skin. Thus we believe cosmetic products, even if they are manufactured by using said water are safe when used under normal and foreseeable conditions. As it is well known, we are exposed to 2,400 microsieverts of naturally occurring radiation per year on average.



## Impact on Japanese Economy

## Analytical Framework

#### (1) Coverage

Prefectures Covered : Hokkaido, Aomori, Iwate, Miyagi, Fukushima, Ibaraki, and Chiba
Period Covered : FY2011- FY2013

# (2) Impact on Capital Stock (Social Capital, Housing, Private Plant & Equipment) : Direct Damages

• Estimate Damages done to Stocks in the Disaster Area Buildings, Social Infrastructure (such as Roads, Harbors, Airports) etc.

#### (3) Impact on Flows (GDP) : Indirect Damage and Reconstruction of Stocks

- A. Impact on GDP in the Disaster Area
- ⇒ Decline in Production due to Damages done to Private Plant & Equipment
- B. Impact on GDP in the Non-Disaster Area
- $\Rightarrow$  1) via Supply-Chain Connections
  - 2) via Constraint on Electric Power Supply
- C. Reconstruction of the Damaged Stocks
- ⇒ Impact of the Reconstruction of the Damaged Stocks over a number of years

## Impact on Japanese Economy

Estimate of Damages to the Stock

#### Damaged Capital Stock in Disaster Areas

#### <u>16~25 trillion Yen</u> (US\$195~305 billion)

(Reference1)

Japan's GDP : 500 trillion Yen (US\$5.9 trillion)

(Reference2)

Damaged stock in the Great Hanshin-Awaji Earthquake:

9.6  $\sim$  9.9trillion yen

(Total stocks in Hyogo prefecture is estimated to be around 64 trillion yen )

Reconstruction of Damaged Capital Stock

Case1 (Damaged stocks: 16 trillion yen (US\$195B)

FY2011: 5 trillion yen (US\$61B) ( 1st half 2 trillion yen, 2nd half 3 trillion yen) FY2012: 6 trillion yen (US\$73B) FY2013: 5 trillion yen (US\$61B)

#### Case2 (Damaged stocks: 25 trillion yen (US\$305B))

FY2011: 7<sup>3</sup>/<sub>4</sub> trillion yen (US\$94.5B) (1st half 3 trillion yen, 2nd half 5 trillion yen) FY2012: 9<sup>1</sup>/<sub>2</sub> trillion yen (US\$116B) FY2013: 7<sup>3</sup>/<sub>4</sub> trillion yen (US\$94.5B)

#### The Case of Great Hanshin-Awaji Earthquake

In Hyogo prefecture, investment was made intensively during the three years following the earthquake. As a result, total net fixed capital formation during the three years amounted to more than 10 trillion yen, which was equivalent to the amount of stock damaged by the earthquake. (r(1, yen) Gross and Net fixed capital formation in Hyogo prefecture



Source: Cabinet Office of Japan

Source: Cabinet Office of Japan

#### JAPAN EXTERNAL TRADE ORGANIZATION



#### Impact on Japanese Economy

Decline in Production Due to Damages Done to Private Plant & Equipment





## Impact on Japanese Economy

#### Recovery and Plan for Reconstruction

[Short-Term]

Clearing Debris, Erecting Temporary Housing, Rehabilitating Industrial Facilities

[Mid and Long-Term] Disaster-Resilient, Eco-Friendly, and Welfare-Oriented City Planning

Establishing "Reconstruction Design Council" In drafting a plan for reconstruction we must call upon the opinions of experts and those with a stake in the future of the region.

•Delivered blueprint on June 25

Supplementary Budgets
 The first supplementary budgets bill passed through the Diet on May 2
 The second has submitted to the Diet on July 5.

#### The First Supplementary Budgets

Amount : 4 trillion yen (US\$49B) Example:

≻1.2 trillion yen

Public works projects, including restoration of roads and ports.

≽483 billion yen

Disaster relief, including building 100,000 temporary houses and condolence money

≻500 billion yen Financial assistance for SMEs

The Second Supplementary Budgets

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Amount : 2 trillion yen (US$24B)
Example:
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>1.2 trillion yen

Radionuclide damage compensation.

>377 billion yen

Additional financial assistance for SMEs.

Present Status and Prospects for Restoration of the Production Base in the Affected Areas

- More than 60% of the affected production base of respondents had already been restored by mid April.
- Meanwhile, other production sectors are in a recovery phase, and in total about 90% are expected to be restored by summer.

(Reference) The ratio of the number of establishments located in the municipalities in 7 prefectures (Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Tochigi, and Chiba) covered by the Disaster Relief Act in the total number of the manufacturing establishments for the entire country, is approximately 7%. (The figure was calculated based on a Census of Manufacturers in 2008, as of March 27th)



※Affected areas : Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Tochigi, Chiba

The expected timetable for settling procurement shortages of raw materials, components and parts

Time expected to secure sufficient amounts are:

- The materials industry: 8% have already secured sufficient amounts, a total of 54% expect to do so by July, and a total of 85% expect to do so by October.
- The processing industry: 6% have already secured sufficient amounts, a total of 29% expect to do so by July, and a total 71% expect to do so by October.

The expected timing to secure sufficient supplies



#### Impact on the Supply Chains Caused by the Earthquake and Rolling Blackouts (Examples)



#### Effects on Specific Industries : (1) Steel

- Although Sumitomo Metal's Kashima plant stopped production, other Japanese iron works produced enough crude steel to meet all demand.
- Sumitomo Metal's Kashima plant resumed operations on April 30 and has already returned to full production.



#### Effect on Specific Industries : (2) Auto / Electronics Industries

- Several weeks after the earthquake, certain major factories producing core parts and materials temporally ceased operations, but gradually resumed. For factories that need more time to recover, companies are seeking substitute production capacity from other factories.
- Most of the motor production companies have restarted production, depending on the supply level of core parts and materials.

Toyota Motor	All factories resumed production on April 18th.
Nissan	All factories, including a seismic-damaged engine factory in lwaki-city, resumed production on April 18th.
Honda	After production resumed of finished automobiles at the Saitama factory and Suzuka factory, all factories resumed production on April 11th.
Hitachi Automotice Systems	Sawa and Fukushima Auto-parts manufacturing factories damaged in the earthquake partially resumed production on March 25th. Manufacturing facilities have been almost completely repaired.
Hitachi Vehicle Energy	Headquarter factory damaged in the earthquake at Hitachinaka-city resumed production of Lithium-ion batteries from March 28th.
Hitachi Itd.	Operations resumed at the end of March, 2011, and most facilities returned to full production after mid-April.
Renesas Electronics	6 of 7 factories damaged in the earthquake have already resumed production. The NAKA Factory damaged by the earthquake already resumed production on June 1st.
Shinetsu Chemicals	Shirakawa Factory damaged in the earthquake partially resumed production on April 20th. Right now, carrying out the restoration work with the aim of returning the production capacity at the plant to the level prior to the earthquake by the end of June or July of this year.
IHI	Soma Factory damaged in the earthquake which produces engines and gas turbines, resumed operation on March 29th.

#### Effect on Specific Industries : (3) Food Production & Export Industries

- Several weeks after the earthquake, certain major factories producing core parts and materials temporarily ceased operations, but gradually resumed. For factories that need more time to recover, companies are seeking substitute production capacity from other factories.
- Food export industries pay extra effort to securing food safety. US FDA conducted intensive monitoring and sampling. Due to this procedure, import processes took an extra 2-3 weeks until May. After May, US FDA reduced sampling based on the previous test results, and the procedure became faster.

#### Fishery industries in Tohoku



Because of the severe damage to ports, fishing vessels, aquaculture and process facilities, recovery effort is ongoing. Some fishermen have restarted fisheries: Fishermen started fishing from Port of Hachinohe, Aomori from March 21.

March 21, Asahi Shinbun

Sake industries in Tohoku Miyakanbai Brewery in Miyagi experienced severe damage to the brewery. But it resumed distribution on March 28.







Decreased Consumption causes "the Secondary Economic Damage" to the Japanese Economy. One brewer's message changed the direction.



A message from Mr. Kosuke Kuji, a chief brewer of *Nanbu-bijin-brewery*, which was damaged by the earthquake



Mr. Kuji, from Nanbu-bijin Brewery, is broadcasting his message on Youtube to encourage consumers to drink sake from Tohoku area in northeast Japan where the earthquake hit most severely. His brewery was damaged by the 3.11 earthquake and is suffering from decreased consumption of sake during cherry blossom season because many Japanese do not think it appropriate to celebrate cherry blossom season. He argues this kind of restrained consumer behavior is causing "the secondary economic damage" to Tohoku and encourages celebrating cherry blossom season and drinking sake from the damaged area to revitalize their economy.

Mr. Kuji's message in the Japanese version has been played over 520,000 times. See the message in English at: <u>http://www.youtube.com/watch?v=hIVtlEvXtRI</u>



#### Japanese Food Promotion Efforts - Chicago

- Consulate General of Japan at Chicago and JETRO hosted the first Japanese Sake Export Promotion Event in the Midwest following The Great East Japan Earthquake at Kendall College. It attracted 147 food industry professionals on May 12, 2011.
- 9 Japanese brewers actually came to US. As John Gauntner, "the sake guy", conveyed, the brewers from Japan sent the message "We are OK, we are still making good products, and we still value you as customers!".
- Many of the brewers and distributors predict U.S. sake sales will grow this year, especially in the Midwest



John Gauntner "a Sake Samurai" gives his presentation

Chef Takashi demonstrates his unique recipe



Nine brewers from Japan and eight US distributors exhibited at the event.

Among them, Okunomatsu from Fukushima and Nanbubijin from Iwate are two brewers from earthquake affected areas.

Nine brewers participated in The Japan America Society's Sake Event for consumers.



#### Continuing Japanese Food Promotion Efforts – Taiwan, NY

- JETRO organized a large scale Japan pavilion at "Food Taipei 2011" from June 22 to 25 in Taiwan, which was the first large scale Japan pavilion after The Great East Japan Earthquake.
- > JETRO NY will exhibit at "2011 Summer Fancy Food Show" in Washington D.C. from July 10 to 12.
- JETRO will exhibit not only foods but also fully explain how Japan is ensuring food safety of foods from Japan.



Food Taipei had 959 exhibitors and about 45,000 attendees in 2010.

Japan Pavilion exhibited vegetables, processed foods, alcoholic beverages, tea, meat & milk products, etc. from 50 producers, associations and local governments.



Fancy Food Show had 2,400 exhibitors and 23,000 attendees in 2010. JETRO will exhibit miso, vinegar and various kinds of food from Ishikawa and Kanagawa.

# Websites providing Information about Japan after the Earthquake

#### JETRO website - Invest in Japan: http://www.jetro.go.jp/en/invest

#### **Useful Links**

- Prime Minister's Office of Japan
- Public Relations Office, Cabinet Office
- Ministry of Economy, Trade and Industry(METI)
- Ministry of Foreign Affairs of Japan
- Ministry of Agriculture, Forestry and Fisheries
- Ministry of Health, Labour and Welfare
- Ministry of Land, Infrastructure, Transport and Tourism
- Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- ◆ <u>Tokyo Electric Power Co.</u>
- Japan National Tourism Organization: Japan Travel Updates after the 3.11 Earthquake





# **Japan's Competitive Strengths**



# **QUICK COMPARISON**

	JAPAN	USA	
Land Area	145,925 sq mi	3,794,101 sq mi	
Population Density	873.9 people sq mi	83 people sq mi	
2008 Population	127 million people	310 million people	
2030 Estimated Population	117 million people	323 million people	

- Japan is approximately the size of California and stretches from Maine to Florida.
- It has 13 cities with more than 1 million people, compared to the USA's 9 cities.

Токуо	8.5 mil	Kobe	1.5 mil	Saitama	1.2 mil
Yokohama	3.6 mil	Kyoto	1.4 mil	Hiroshima	1.1 mil
Osaka	2.6 mil	Fukuoka	1.3 mil	Sendai	1.0 mil
Nagoya 2.2 mil		Kawasaki	1.3 mil	Kitakyushu	1.0 mil
Sapporo	1.9 mil				
(Japan Marketing Data 2008-09)					



# QUICK COMPARISON

	Japan	USA
Life Expectancy (2000 est )	male: 78.8 years	male: 75.65 years
Life Expectancy (2009 est.)	female: 85.62 years	female: 80.69 years
Population Density (2009 est.)	1.21 children born/woman	2.05 children born/woman
GDP PPP (2008 est.)	\$4.356 trillion (3 <sup>rd</sup> )	\$14.441 trillion (1 <sup>st</sup> )
Per Capita GDP (2008 est.)	\$34,115 (24 <sup>th</sup> )	\$47,440 (6 <sup>th</sup> )
		Source: 2009 CIA World Fact Book

- Japan has the world's longest life expectancy. At the same time, it also is the first industrialized nation to enter zero population growth.
- Seniors in Japan have more than \$13 trillion in household savings.



## Japan's competitiveness remains high In top 10 ranking since 2006

	2001	2002	2003	2004	2005
1	Finland	United States	Finland	Finland	Finland
2	United States	Finland	United States	United States	United States
3	Canada	Taiwan	Sweden	Sweden	Sweden
4	Singapore	Singapore	Denmark	Taiwan	Denmark
5	Australia	Sweden	Taiwan	Denmark	Taiwan
6	Norway	Switzerland	Singapore	Norway	Singapore
7	Taiwan	Australia	Switzerland	Singapore	Iceland
8	Netherland	Canada	Iceland	Switzerland	Switzerland
9	Sweden	Norway	Norway	Japan	Norway
10	New Zealand	Denmark	Australia	Iceland	Australia
11	Ireland	United Kingdom	Japan	United Kingdom	Netherlands
12	United Kingdom	Iceland	Netherlands	Netherlands	Japan
13	Hong Kong SAR	Japan	Germany	Germany	United Kingdom
14	Denmark	Germany	New Zealand	Australia	Canada
15	Switzerland	Netherlands	United Kingdom	Canada	Germany

21 Japan

	2006	2007	2008	2009	2010
1	Switzerland	United States	United States	Switzerland	Switzerland
2	Finland	Switzerland	Switzerland	United States	Sweden
3	Sweden	Denmark	Denmark	Singapore	Singapore
4	Denmark	Sweden	Sweden	Sweden	United States
5	Singapore	Germany	Singapore	Denmark	Germany
6	United States	Finland	Finland	Finland	Japan
7	Japan	Singapore	Germany	Germany	Finland
8	Germany	Japan	Netherlands	Japan	Netherlands
9	Netherlands	United Kingdom	Japan	Canada	Denmark
10	United Kingdom	Netherlands	Canada	Netherlands	Canada

#### Source: World Economic Forum "The Global Competitiveness Report" (various years)



## **Japanese Manufacturing Companies in the U.S. (Total 2,153 Plants)**



Source: JETRO's Annual Survey on Business Conditions of Japanese Companies in the U.S. & Canada - Nov. 2010



## JAPANESE MANUFACTURING FACILITIES IN THE USA

	<b>1987</b>	<b>1992</b>	<b>1999</b>	2002	2007	2010
Illinois	28	114	120	116	109	124
Indiana	12	76	112	102	97	117
Michigan	25	85	103	94	90	109
Ohio	16	128	183	170	165	168
Kentucky	10	70	100	102	116	122
Tennessee	17	55	99	81	91	85
Alabama	9	24	35	39	48	44
Georgia	40	84	112	105	110	89
TOTAL	157	636	864	809	826	858
U.S. Total	550	1724	2126	1961	1918	2153

Source: JETRO's Annual Survey on Business Conditions of Japanese Companies in the U.S. & Canada – Nov. 2010 & past years

#### Japan Opens "3 Windows" to the World

#### 1<sup>st</sup> Window: Innovation Hub

- ◆ Japan boasts large numbers of leading global companies and SMEs with proprietary technologies which support global firms.
- Japanese firms rank high for the number of international patent applications (PCT applications). Japan comes in top for the number of environment-related patent application publications.
- With their high level technologies and R&D capabilities, Japanese firms create diverse added-value and intellectual properties.

#### 2<sup>nd</sup> Window: Business Platform

- Japan plays an important role as a "bridge nation" for countries interested in doing business with Asian countries, which contributes to Asia's growth.
- Japan has some of the best infrastructure in terms of both advanced infrastructure (ICT infrastructure) as well as basic infrastructure (electricity, gas and water).
- ◆ Japan promises a safe, secure and comfortable living environment.

Number of Researchers per 10,000 People



Source: Ministry of Internal Affairs and Communications, "The Results of 2009 Survey on Science and Technology Research (Summary)"

#### 3<sup>rd</sup> Window: Trendsetter

- ◆ Japan is one of the world's largest economies. The economic size of each region within Japan is comparable to an entire nation's economy.
- ◆ Japan offers a market for test marketing before entering Asian markets. It is also a country with "soft power," which sets trends.
- Sectors with large growth potential exist including health and tourism markets.



# The Japanese Market: Trends & Opportunities



# **TRENDS & OPPORTUNITIES**

## • Trends

- Restrictions on electricity due to the destruction of power plants
- Aging society
- **Opportunities** 
  - **o Green & Clean Technologies**
  - Medical & Biotechnology
  - **o Service Robotics**

#### Trend: Restrictions on electricity due to the destruction of power plants

Supply-demand balance in the Tohoku EPCO, TEPCO and Chubu EPCO areas (ten thousand kW/%)

	Tohoku EPCO (end of August)	TEPCO (end of July)	Chubu EPCO (August)
Supply capacity	1,370	5,380	2,773
Maximum demand	1,480	6,000	2,709
Reserve power	-110	-620	64
Reserve power rate	-7.4	-10.3	2.4

Note 1: The peak at the same level as last summer's (H1) is used for the expected demand. Note 2: The figures include power interchange from other electric companies.

As of May 25, Source: Ministry of Economy, Trade and Industry



The Japanese government aims to reduce the demand of electricity by 15% in the area of Tohoku EPCO and TEPCO (Tokyo Electric Power Company) due to the limited supply.

Each facility with an electricity supply contract above 500kW must limit its usage to 85% of the hourly maximum amount of usage of 2010. This must be conducted on weekdays from July 1 to September 22 (September 9 in Tohoku EPCO area), between the hours of 9 a.m. to 8 p.m.

Other facilities and general consumers are strongly encouraged to reduce electricity consumption.



## The Guideline on Policy Promotion For the Revitalization of Japan

May 17, 2011 Cabinet Decision

- (2) Basic Policies for Economic and Fiscal Management for the Immediate Future, Short-Term, and Medium to Long-Term
  - 2) Short-Term (About Three Years From Now): Lay the Foundations for Self-Sustaining Growth
  - We will create a virtuous cycle for fostering new seeds of growth (including the construction of compact cities and Eco-Towns; energy conservation and new energy businesses; the development of distributed energy systems; social security services suited to regional needs; and turning agricultural, forestry, and fishery industries into value-added sextic industries, integrating processing and retailing functions, etc.) and expanding capital demands (promoting private investment through funds and encouraging the use of private finance initiatives and public-private partnerships, etc.).



#### **Opportunities: Green & Clean Technologies**

Large Japanese companies are required to reduce the energy usage by 15% this summer. The Japanese government also needs to re-consider its energy strategy.



#### **Opportunities: Green & Clean Technologies**

With the expansion of the Japanese EV market, more business opportunities for market entry are expected to surface in the EV peripheral business, e.g. infrastructure development.

5,000 charging stations will be installed in Japan by 2020 at convenience stores, gas stations and pay-by-the-hour parking lots.



#### **EV Infrastructure and Peripheral Businesses**



# JETRO Invitation Program for SMART CITY WEEK 2011



If your company has an interest in setting up an office in Japan, or is currently seeking Japanese partners to develop business in the Japanese market, we invite you to apply for JETRO's Invitation Program.

## **SMART CITY WEEK 2011**

http://expo.nikkeibp.co.jp/scw/2011/exhibitors/english/

#### October 26-28<sup>th</sup>, 2011

#### Pacifico Yokohama Yokohama, Japan

Smart City Week 2011 is designed for component technologies, materials, and manufacturing machinery related to constituent elements of Smart Cites, which includes:

Energy Solutions (photovoltaic systems, battery systems, smart grid & micro-grid systems, heat pumps)

- •Smart Home & Building Solutions (smart meters, home & building energy management systems)
- •Next-Generation Mobility Systems (EV, EV infrastructure, other related technologies)
- Electronic Devices & Solutions (Power semiconductors, energy-conserving electronic devices, device manufacturing equipment, component materials, parts)

#### **POTENTIAL INVITEES**

•Companies having an interest in investing in Japan, or currently seeking Japanese partners to establish business in Japan.

#### **BENEFITS TO PARTICIPATION**

•Booth space and a dedicated interpreter will be provided by JETRO.

- •JETRO will arrange one-on-one business meetings for your company during the event.
- •Your participation will be promoted on the JETRO website and by local governments to local companies in Japan.
- •Your company's profile will be listed in the JETRO Zone Exhibitors Booklet, which will be distributed before the event and on-site.
- •Participation costs for the show will be paid in part by JETRO.

JAPAN EXTERNAL TRADE ORGANIZATION

## JETRO

## Trend: Aging Society



Data : Ministry of Health, Labor and Welfare, Government of Japan

#### **Opportunities: Service Robotics**

Japan is leading the world in the development of service robots. Companies like Toyota, Honda and Mitsubishi are all aggressively developing robots that will be used in the home, office and healthcare. These machines will complement the human work force and help lessen the impact of Japan's declining birthrate.



#### **Opportunities: Service Robotics**

After the earthquake and nuclear power plant problem, robots are expected to assist with difficult tasks in severe environments.





#### Japan - SME Innovation MEET PARO: A Therapeutic Robot

PARO is an interactive robot created by Dr. Takanori Shibata at Japan's National Institute of Advanced Industrial Science and Technology (AIST). Manufactured in Toyama, Japan.

Designed to look like a baby harp seal, PARO takes the place of therapy animals for patients with Alzheimer's, Autism and other cognitive disorders.

PARO has been shown to reduce patient stress, aid in memory recall, stimulate interaction between patients and caregivers and improve patient socialization.

PARO has five kinds of sensors: tactile, light, audition, temperature, and posture sensors, with which it can perceive people and its environment

JETRO Chicago worked with Dr. Shibata and helped him to establish PARO USA in Itasca, Illinois.



#### JAPAN EXTERNAL TRADE ORGANIZATION

## JETRO











How JETRO can help you?

JETRO is an integrative

one stop service center,

ready to assist companies

with all of their Japan needs.

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Providing Basic Information Attractive Sectors, Success Cases Incentives

**Sharing the Japanese Mindset** Monozukuri Seminar / Workshop etc

#### JETRO SERVICES



#### **BUSINESS CONSULTATION**

JETRO can provide information on types of corporate structures, company registration, visa applications and tax and labor procedures.

#### MARKET RESEARCH

JETRO can provide data on a range of products, services, business and industrial environments, regional enterprises, current market trends and case studies. JETRO can also provide estimates on the cost of establishing an office in Japan and cost reports on different geographic regions.



#### **BUSINESS MATCHING**

Companies interested in finding a business partner in Japan can enroll in JETRO's Health Care Partnering and Information & Communication Technology (ICT) Partnering programs, providing direct access to leaders and innovators in Japan's health care and ICT industries.

#### JAPAN TRADE MISSIONS

Each year, JETRO sends select companies to Japan to exhibit at large tradeshows. Companies exhibit in a special JETRO Zone and participate in business matching sessions to meet potential partners and clients.



#### **TEMPORARY OFFICE SPACE**

Companies establishing an office in Japan can make use of free office space at one of JETRO's six Invest Japan Business Support Centers (IBSCs).

#### HUMAN RESOURCE ASSISTANCE

JETRO staff can search for specific candidates, including representatives in Japan, sales people, accountants and engineers, through recruitment and job-placement companies and present the candidates to companies. SITE SELECTION ASSISTANCE

JETRO can help companies find possible locations for your permanent office using real estate companies. JETRO can also provide information on incentives and subsidies from local governments.



- Umicore (headquarter:Belgium) is the second largest company for cathode materials of lithium ion batteries in the world.
- Production facilities are currently located in Korea and its materials exported to Japan. Umicore has decided to move to Japan to take advantage of government subsidies. An R&D base will be located in Kobe.



Please visit JETRO website



Interview with CEO of Umicore group, Mr. Marc Grynberg The earthquake has not shaken Japan's value as a world business hub, although it affected their customers, thereby impacting business.

Read more...



Miyagi Coop Facility (developed by ProLogis)





## Thank you!



## For more information, please visit <u>www.jetro.org</u>