"Thailand Business Environment and Investment Policies"



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Presentation Outline

- Macroeconomic Overview
- Why Thailand
- Investment Policies
- Investment Opportunities

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Macroeconomic Overview

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Economic Performance & Outlook 2011

| Economic Projections | 2009 | 2010 | 2011e |
|---------------------------------------------|-------|------|---------|
| 1) GDP (at 1988 prices) | -2.3 | 7.8 | 3.5-5.0 |
| 2) GDP per Capita (million KRW per year) | 4.86 | 5.40 | 5.77 |
| 3) Export, FOB value (percent y-o-y) | -14.0 | 28.5 | 12.5 |
| 4) Import, CIF value (percent y-o-y) | -25.2 | 36.8 | 14.6 |
| 5) Industrial Capacity Utilization (%) | 61.0 | 63.4 | NA |
| 6) Inflation | -0.8 | 3.3 | 2.8-3.8 |

Source: NESDB and Bank of Thailand as of February 11, 2011. Note: KRW1 = Bt0.03 as of May 6, 2011

Selected Costs of Doing Business

- Corporate Income Tax: 30%
- Personal Income Tax: 5 to 37% based on level of taxable income
- Value Added Tax: 7%
- Water Rates for business: KRW 340 to 568 per cubic meter based on water volume used
- Electricity Rates for business (medium general service): KRW 6,310 to 7,950 per kW based on level of voltage
- Selling Prices of Areas in Industrial Estate: KRW 34 to 268.5 million per 1 rai (0.4 acres) based on location



Thai Labour Force

- 93.9% adult literacy rate
- Labour force 56.4%(Population: 67 million)
- Thailand ranks #25 out of 138 countries for women's economic participation and opportunity

No. of Population Aged 15 Years and Over by Labour Force Status and Level of Education Attainment: 2009

| Level of Educational Attainment | Employed | Unemployed | Total |
|--------------------------------------------------|----------|------------|----------|
| | (,000) | (,000) | (,000) |
| Higher Level | 5,908.2 | 147.1 | 6,055.3 |
| Academic | 3,287.5 | 77.4 | 3,364.9 |
| Higher Technical Education | 1,832.5 | 59.1 | 1,891.6 |
| Teacher Training | 788.2 | 10.6 | 798.8 |
| Upper Secondary | 5,050.5 | 72.6 | 5,123.1 |
| General / Academic | 3,733.7 | 43.2 | 3,776.9 |
| Vocational | 1,305.6 | 29.4 | 1,335.0 |
| Teacher Training | 11.2 | - | 11.2 |
| Lower Secondary | 5,816.0 | 112.4 | 5,928.4 |
| Elementary | 8,743.5 | 80.9 | 8,824.4 |
| Less Than Elementary | 11,591.3 | 39.4 | 11,630.7 |
| Other (Including Short Course Vocational) | 18.4 | 0.2 | 18.6 |
| No Education | 1,173.3 | 3.1 | 1,176.4 |
| Unknown | 70.5 | 0.4 | 70.9 |
| Total | 38,371.5 | 456.1 | 38,827.6 |

Source: The Labour Force Survey Whole Kingdom 2010, National Statistical Office

Selected Salaries for Thai Workers

- Engineer
- Sales Staff
- Office Clerk
- Driver
- Minimum Wage

KRW 647,280 /month KRW 539,400 /month KRW 359,600 /month KRW 287,680 /month KRW 5,430-7,410 /day (*31 May 2010*) (depending on location)

Number of working hours: 48/week Social security contribution by employers

-Social security fund: 5% of salary -Workman's compensation fund: 0.2 - 1.0% depending on the type of business.



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Thailand – S. Korea Trade 2002 – Nov 2010



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Source: MOC, as of April 12, 2011 BOT/Exchange Rate (2003-2010) Yearly Average Basis

Principal Exports to S. Korea

unit: KRW billion

| Description | 2008 | 2009 | 2010 | 2010 (Jan-Feb) | 2011 (Jan-Feb) | % Growth (YOY) |
|---------------------------------------------------------|---------|---------|---------|-------------------|-------------------|-------------------|
| Rubber | 467.9 | 265.5 | 605.3 | 71.2 | 136.4 | 91.77 |
| Electronic integrated circuits | 353.1 | 428.7 | 428.8 | 83.4 | 57.6 | -30.96 |
| Other electrical equipment and parts thereof | 97.1 | 114.9 | 209.8 | 25.5 | 52.9 | 108.06 |
| Automatic data processing machines and parts thereof | 233.1 | 238.7 | 230.7 | 46.0 | 35.2 | -23.34 |
| Sugar | 71.4 | 59.8 | 75.8 | 10.4 | 33.9 | 225.68 |
| Others | 2,740.3 | 1,936.8 | 2,348.2 | 393.2 | 463.3 | 17.81 |
| Total | 3,962.7 | 3,044.4 | 3,898.7 | 629.6 | 779.4 | 23.79 |



Source: MOC, as of April 12, 2011. Note: KRW1 = Bt0.03 as of May 6, 2011

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Principal Imports from S. Korea

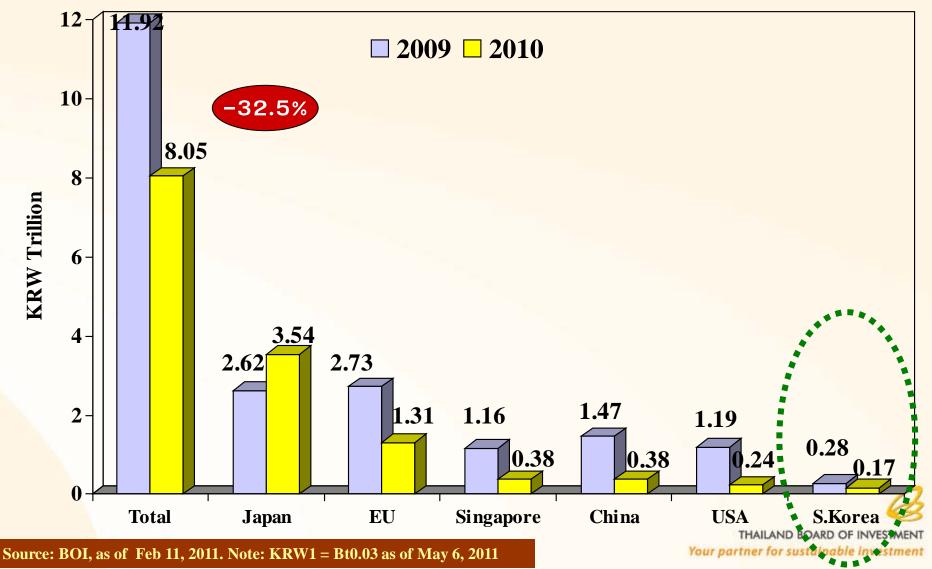
unit: KRW billion

| Description | 2008 | 2009 | 2010 | 2010 (Jan-Feb) | 2011 (Jan-Feb) | % Growth (YOY) |
|---------------------------------|---------|---------|---------|-------------------|-------------------|-------------------|
| Iron, steel and products | 1,387.6 | 731.8 | 1,304.2 | 204.4 | 237.6 | 16.19 |
| Chemicals | 776.7 | 570.5 | 842.1 | 121.8 | 143.4 | 17.76 |
| Machinery and parts | 727.5 | 585.3 | 801.8 | 124.0 | 120.5 | -2.79 |
| Electronic integrated circuites | 503.8 | 425.3 | 656.2 | 108.4 | 101.1 | -6.77 |
| Electrical household appliances | 566.0 | 558.9 | 487.4 | 76.6 | 80.0 | 4.56 |
| Others | 3,447.0 | 2,983.9 | 4,609.4 | 763.0 | 659.9 | -13.51 |
| Total | 7,408.7 | 5,855.5 | 8,701.0 | 1,398.3 | 1,342.5 | -3.98 |



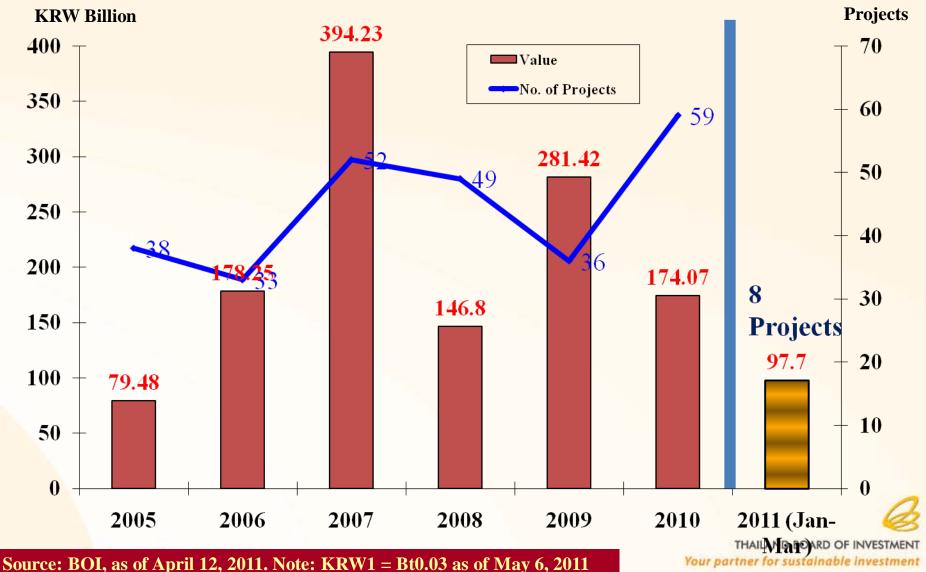
Source: MOC, as of April 12, 2011. Note: KRW1 = Bt0.03 as of May 6, 2011

Foreign Direct Investment Applications



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South Korean Investment Applications



South Korean Investment Applications Totals by Sector: 2005 – Mar 2011

| Sector | Projects | KRW Billion |
|-----------------------------------|----------|-------------|
| Agriculture | 8 | 21.71 |
| Minerals and Ceramics | 7 | 212.17 |
| Light Industry | 14 | 21.63 |
| Auto and Metal Processing | 53 | 210.95 |
| Electrical and Electronics | 112 | 450.42 |
| Petrochemicals, Chemicals | 46 | 84.90 |
| Services and Infrastructure | 35 | 350.20 |
| TOTAL | 275 | 1,351.97 |

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Source: BOI, as of April 12, 2011. Note: KRW1 = Bt0.03 as of May 6, 2011

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OSCO

BOI Promoted Companies - South Korea





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SAMSUNG



www.boi.go.th







DK

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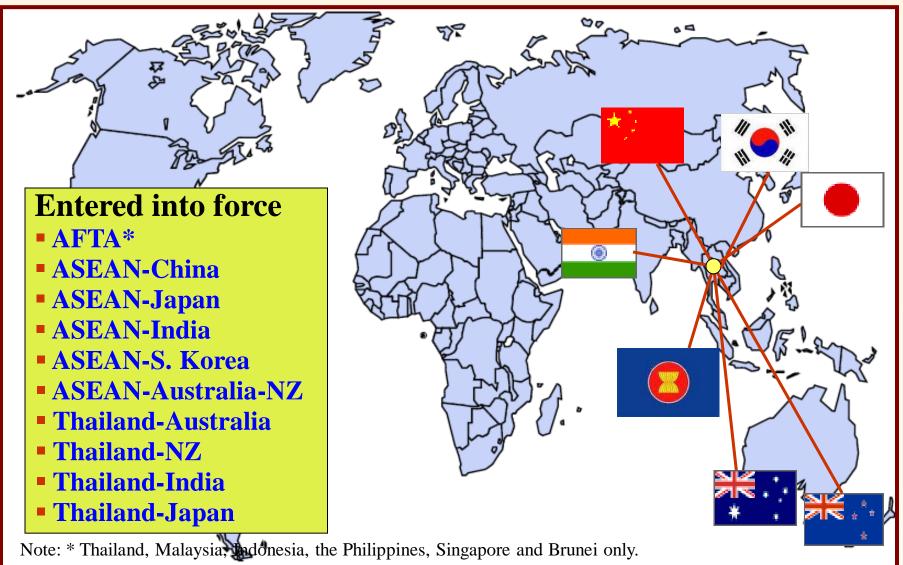
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Why Thailand

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Free Trade Agreements



Source: BOI International Affairs & www.thaifta.com

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Infrastructure - Strong and Growing





Six International Airports run by AOT: 2009 operations: 50 million passengers and 1.04 million tons of cargo Suvarnabhumi Intl. Airport: Initial capacity: 45 million passengers and 3 million tons of cargo/year

Mass Transit : Skytrain, Subway, Bus Systems all to be expanded

Highway System: Over 70,000 km to all provinces

Internet: Wi-Fi capability and inexpensive broadband widely available (up to 5 Mbps)

Deep Sea Ports: 6 deep sea ports and 2 international river ports, capacity over 10 million TEU – Laem Chabang ranked 21st among top 120 container ports

Rail: 4,346 km rail links to Malaysia, Singapore; Bangkok Light Rail expansion plan for 137 km 2006-2012

Industrial Estates: 38 under IEAT and an additional 18 industrial zones and parks

CBD Office Rent (Bangkok): Bt 685 sq.m/month

Communications: 52.8% cell phone use, 18.2% broadband Internet





The Cabinet has given preliminary approval for negotiations with China to build a high-speed train, as part of planned Transnational RR linking China and Southeast Asia

Project to cover 615 km and the train will travel at a top speed of 200km/hr

Will link Kunming in China with Bangkok and Rayong, and connect to the border with Malaysia

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304 Industrial Park 304

AMATA

Amata Industrial Estate



Asia Industrial Estate



Gateway City Industrial Estate



Hemaraj Land and **Development PLC**



Laem Chabang Industrial Estate



Map Ta Phut Industrial Estate



Padaeng Industrial Estate



Ping Thong Industrial Estate



Rojana Industrial Park



Wellgrow **Industrial Estate**

International School & University



Golf Course

Hospital





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Investment Policies

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BOI's Foreign Equity Participation Criteria

- No restriction on foreign shareholding in manufacturing
- 100% foreign shareholding allowed in some services
- At least 51% Thai ownership is required for activities in List 1 of the Foreign Business Act



Package of Privileges and Incentives

TAX Incentives

NON-TAX Incentives

- Import duty reductions or exemptions on machinery and raw materials
- Corporate income tax holidays up to 8 years; additional 50% reductions for 5 years
- Double deduction of public utility costs
- Deductions for construction/installation costs infrastructure

- •100% ownership land rights for foreign investors
- •Permission to bring in foreign experts and technicians
- •Work permit & Visa facilitation

STI Policy – Additional Incentives

Additional Incentive Package for STI

Privileges will be based on the project's total investment in STI (Skill, Technology & Innovation) expenditures in any of the following three STI categories:

- Research and development or design
- Advanced technology training
- Support for educational and research institutes

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Zones **Sector Matrix: Incentives to strengthen** competitiveness **Strategic or Priority Industries** Zone 1 Zone 2 one 3 Maximum incentives

> Zone-Based Incentives:

- Zone 1
- Zone 2

• Zone 3 www.boi.go.th regardless of location

Customized packages

New Policies for 2010-2012 "Investment for Sustainable Development"

Application submission deadline: **December 31, 2012**

Special incentives for 3 groups of targeted activities

- 1) Manufacture of eco-friendly material and products, e.g. bioplastics
- 2) Energy-saving and alternative energy
- 3) High-technology activities, e.g. industrial electronics, electronic parts for vehicles, biotech, nano-tech, functional fiber

Incentives

- Exemption of import duties on machinery
- 8-year exemption of corporate income tax with no cap
- 5-year 50% reduction of corporate income tax on net profit
- 10-year double deduction of transportation, electricity and water supply costs
- Deduction from net profit of 25% of investment in infrastructure installation and construction costs in addition to normal capital depreciation

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Investment Opportunities

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Target Industries

- Automotives and Parts
- Machinery
- Electronics and Electrical Products
- Renewable and Alternative Energy

Automotives *Driving the Future*



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Automotives

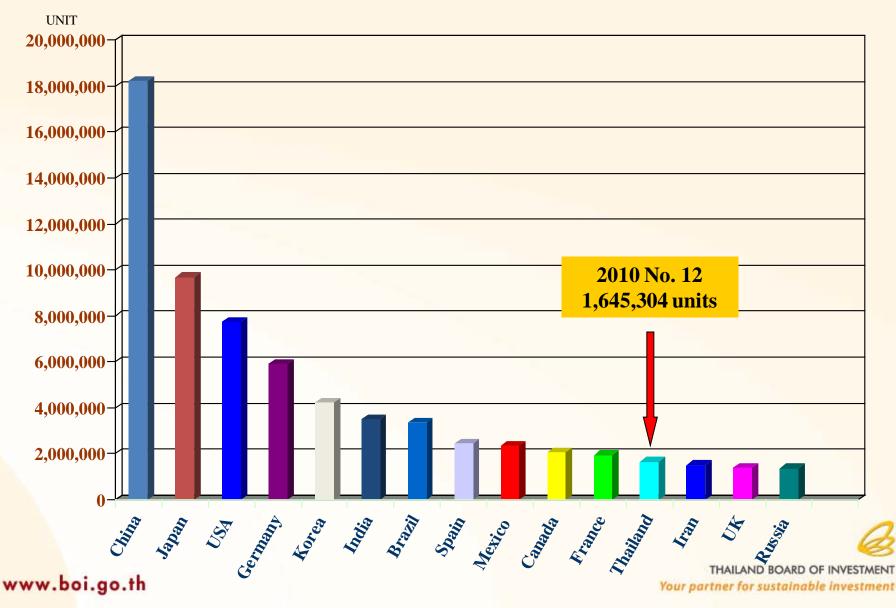
Thailand is ranked as 12th largest auto manufacturing country in the world (up from 13th in 2009)

Thailand is the largest auto producer in Southeast Asia and the world's 2nd largest producer and market of pickup trucks.

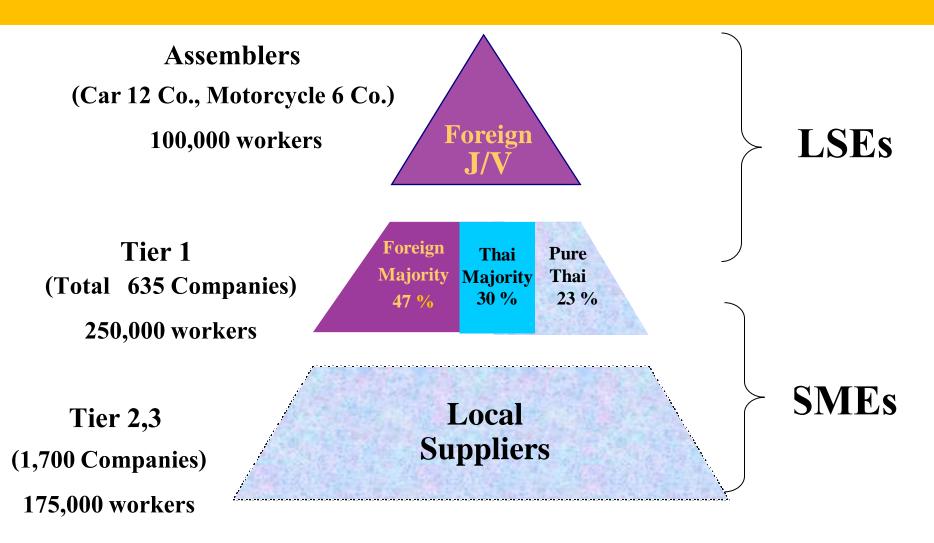
High local content: 80-90% for pickups and 30-70% for passenger cars

Target: producing 1.8 million units in 2011

Thailand Ranked #12 2010 Automobile Production



Structure of Thai Automotive Industry



[* LSEs : Large Scale Enterprises

SMEs : Small & Medium Enterprises]

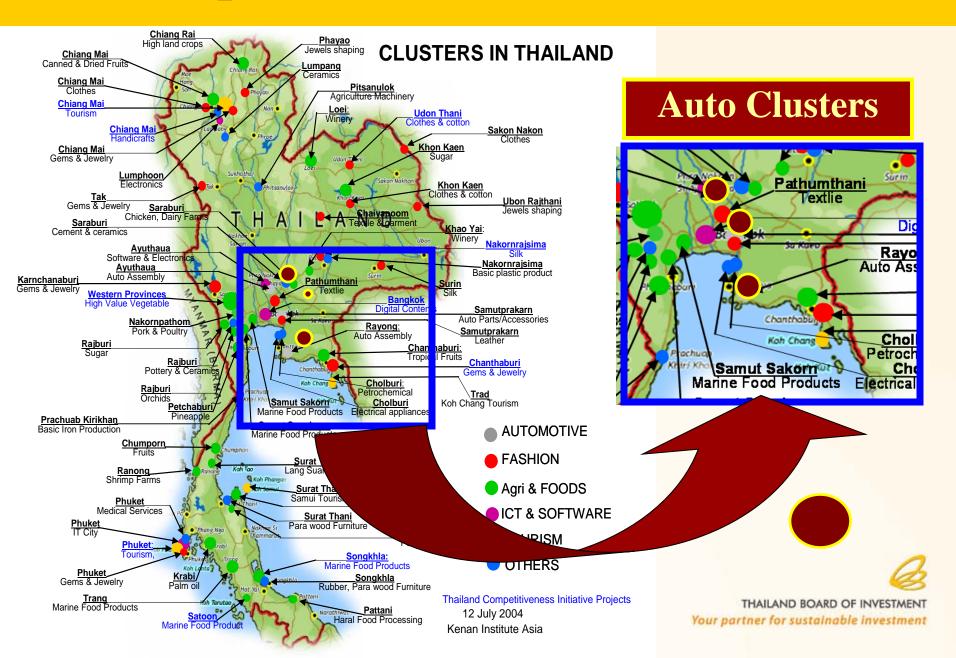
Data updated in July 2010 by TAI

Automotive Industry 2010

- <u>Domestic car sales volume</u>: 800,357 units *45.8% year over year increase
- <u>Manufactured cars</u>: 1,645,304 units
 *64.63% year over year increase
- <u>Exports</u>: 894,690 units
 *62.06% year over year increase, with a total value of KRW 20.9 Trillion



Samples of Clusters in Thailand



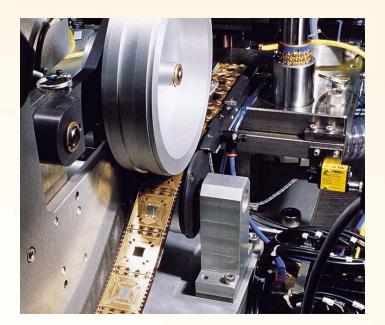
Automotive Excise Taxes

| Passenger Car | 1,000-2,000 cc | 2,001-2,500 cc | 2,501-3,000 cc | | |
|-----------------------------------------------------------------|------------------------------------|-----------------------|-----------------------------------------------------------------------------------|--|--|
| i assenger Car | 30% | 35% | 40% | | |
| Passenger Car using | 1,000-2,000 cc | 2,001-2,500 cc | 2,501-3,000 cc | | |
| Ethanol 20% | 25% | 30% | 35% | | |
| Flex Fuel Vehicle using variety fuel up to E85 gasohol ** | 1,780-2,000 cc 22% | 2,000-2,500 cc 27% | 2,500-3,000 cc 32% | | |
| Pickup Passenger Vehicle ≤ | Single & Space | Double Cab | PPV | | |
| 3,250 cc | Cab 3% | 12% | 20% | | |
| | Large Van | e Van Bus and Truck | | | |
| Transport Vehicle | 0% | <mark>0/</mark> 0 | | | |
| 17% if ≤ 1,300 cc for Gasoline Engines or | | | | | |
| Eco Car* | \leq 1,400 cc for Diesel Engines | | | | |
| | ≤ 3,000 cc | \geq 3,001 cc | | | |
| Alternative Fuel Vehicle | <u> </u> | × Ef | fective date: 1 st Oct 2009 ffective date: 1 st Jan 2011 | | |
| Source: Excise Department. as of January 22. | 2011 | | anecuve uale. 1° Jan 2011 | | |

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Machinery



Machinery to meet demand is in demand

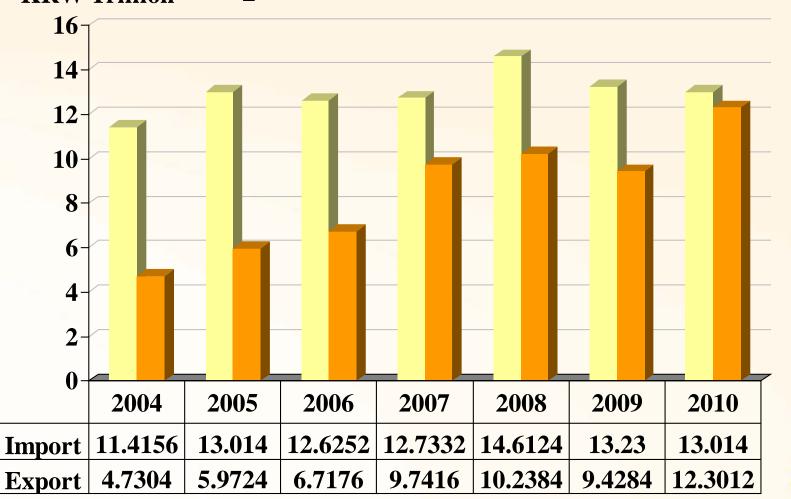


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As of Sept 2010

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Industrial Machinery and Parts, Imports and _{KRW Trillion} Exports, 2004 – 2010



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Source: www.moc.go.th as of 28 January 2011. Note: KRW1 = Bt0.03 as of May 6, 2011

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Opportunities in Machinery

- Thailand continues to industrialize, but is dependent on foreign industrial machinery for the immediate future.
- High demand for:
 - Food and farm machinery
 - Alternative energy/energy conservation machinery
 - Textile machinery
 - Automotive machinery
 - Mould & die industry



Specific Industrial Machinery Needed:

- Turning machines
- Drilling machines
- Milling machines
- Grinding machines
- Machine centers
- Gear cutting & finishing machines

- Die sinking EDMS
- Wire cut EDMs
- Laser beam machines
- Plasma arc cutting machines
- Electron beam machines
- Broaching machines

BOI Priority Activities – 8 years corporate income tax holiday, duty free machinery

More Moulds & Dies Needed in Thailand

- Thailand is still in need of moulds & dies to produce the following products:
- Moulds for Die Casting
 - Engine block
 - Crank shaft
 - Front case
 - Oil pan
 - Gear box auto
 - Safety parts : Master pump & clipper brake



More Moulds & Dies Needed in Thailand (2/2)

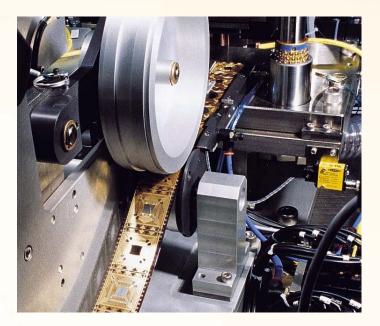
- Moulds for Plastic Injection
 - Automotive Electronic Control Units (ECU)
 - Housing for automotive steering columns
 - Automotive dashboards
 - Parts for digital cameras & cellular telephones

- Parts for notebook computers and PDA (personal digital assistants)

- Transfer press dies
 - Automotive body press die



Electronics & Electrical Products Integrating Innovation & Technology

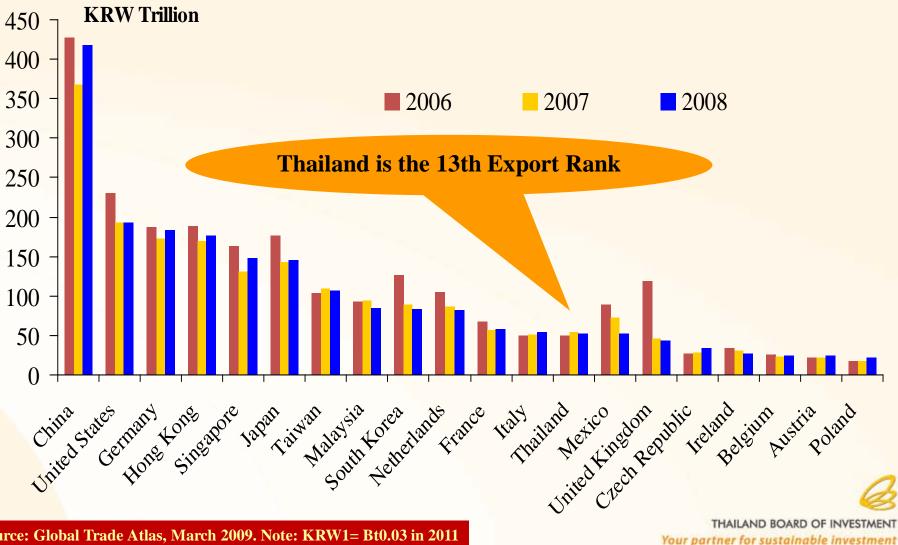




Electronics and Electrical Industry

- Exported KRW57.6 trillion in 2010, almost 30% of total exports
- Major products: computer components, ICs, air conditioners & other white goods
- World's largest producer of HDDs
- Strong supporting industries for electrical appliances, compressors, motors, plastic and metal parts

Electrical and Electronics Global Exporter



Source: Global Trade Atlas, March 2009. Note: KRW1= Bt0.03 in 2011

Integrated Circuit Cluster in Thailand

IC Design



Rohm LSI

- Silicon Craft Technology
- Microchip
- NXP
- Spansion
- Hana Semiconductor
- Circuit Electronics
- Millennium Microtech
 Rohm Integrated System
- Utac Thai
- Stars Microelectronics
 Thai NJR

- Assembly
 - Statschippac
 - Oki
 - Sony Device Technology
 - Sanyo Semiconductor
- - Toshiba Semiconductor
- www.boi.go.th

Vigilant Technology

Source: BOI E&E Industries Division, as of Dec 17, 2009

Lead Frame

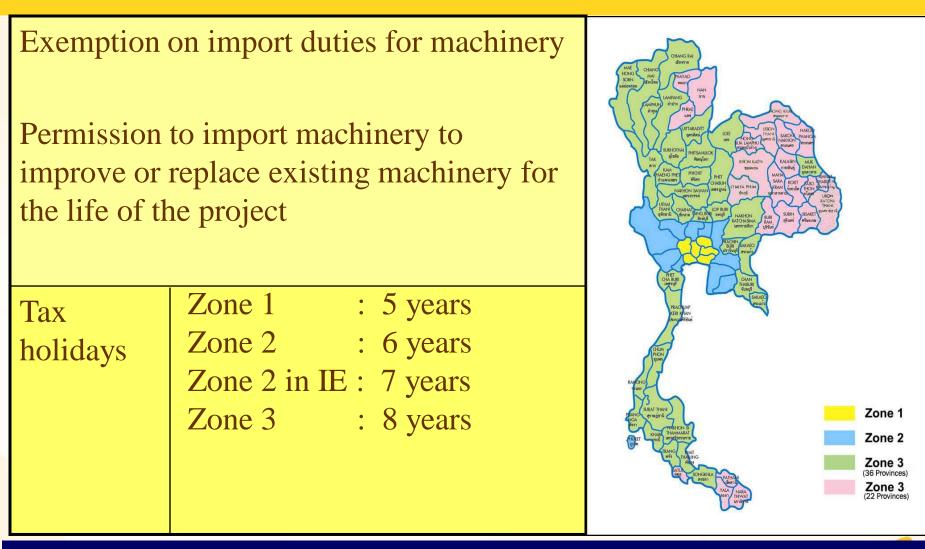
- Sumiko LeadFrame
- TSP-T
- Rohm Mechatech
- Yamakin



 Microchip Maxim Integrated



Basic Incentives for E & E



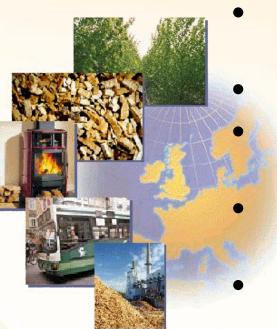
Remarks: Priority activities such as production of wafers and solar cells still receive maximum 8-year exemption regardless of location IE = Industrial estates/industrial parks GEARED FOR THE FUTURE

Investment Incentives for Alternative & Renewable Energy

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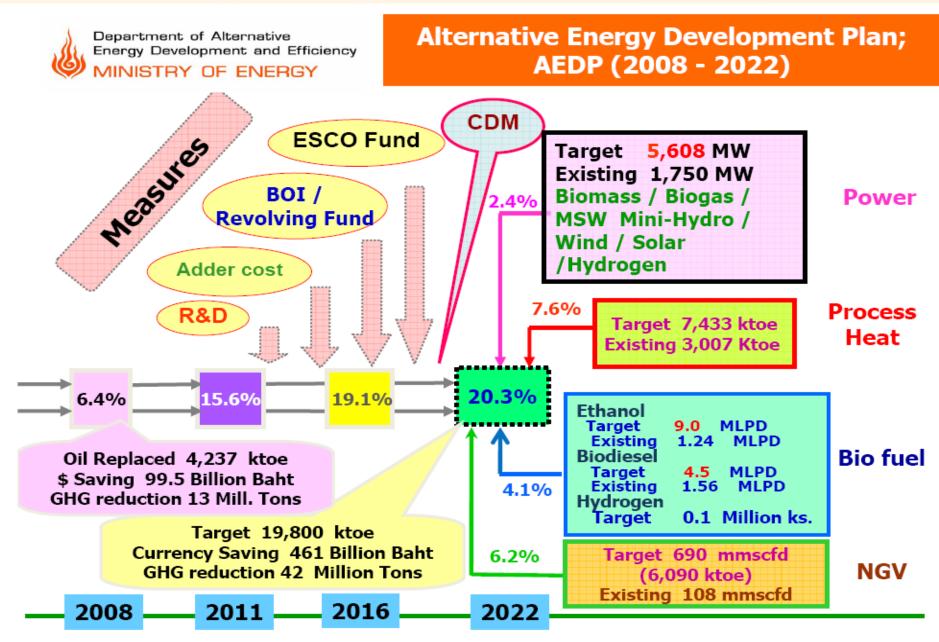
Alternative Energy in Thailand The Fifteen-Year Alternative Energy Plan <u>Objectives</u>



- To enable Thailand to use alternative energy as the main source of energy to replace oil imports
- To strengthen Thailand's energy security
- To promote use of alternative energy as part of a strategy to promote green communities
- To support alternative energy technology production in Thailand
- To research, develop and promote high efficiency technology for alternative energy

<u>Target</u>

"Increasing the proportion of alternative energy to 20% of the national final energy consumption by 2022"



Potential and Targets

| Туре | Potential | Existing | 2008 - | 2011 | 2012 – 2 | 2016 | 2017 – | 2022 |
|-------------|-----------|----------|--------|-------|----------|-------|--------|-------|
| Electricity | MW | MW | MW | Ktoe | MW | Ktoe | MW | Ktoe |
| Solar | 50,000 | 32 | 55 | 6 | 95 | 11 | 500 | 56 |
| Wind | 1,600 | 1 | 115 | 13 | 375 | 42 | 800 | 89 |
| Hydro power | 700 | 56 | 165 | 43 | 281 | 73 | 324 | 85 |
| Biomass | 4,400 | 1,610 | 2,800 | 1,463 | 3,220 | 1,682 | 3,700 | 1,933 |
| Biogas | 190 | 46 | 60 | 27 | 90 | 40 | 120 | 54 |
| MSW | 400 | 5 | 78 | 35 | 130 | 58 | 160 | 72 |
| Hydrogen | | | 0 | 0 | 0 | 0 | 3.5 | 1 |
| Total | | 1,750 | 3,273 | 1,587 | 4,191 | 1,907 | 5,608 | 2,290 |



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Incentives for Alternative Energy Projects

BOI Incentives

- Import duty exemption for machinery (all zones)
- 8-year corporate income tax exemption with no cap (all zones)
- Additional incentives for Zone 3
 - Additional 50% reductions of corporate income tax 5 years
 - Deductions for infrastructure construction costs
 - Double deduction on public utility costs

Support from Ministry of Energy

• Adder price for electricity from renewable source



Support from Ministry of Energy

- Adder price for electricity from renewable source
 - Solar 6.50 B/kWh (10 yrs.)
 - Wind 3.50 B/kWh (10 yrs.)
 - MSW 2.50 B/kWh (7 yrs.)
 - Micro hydro 0.80 ^B/kWh (7 yrs.)
 - Mini hydro 0.40 B/kWh (7 yrs.)
 - Biomass/Biogas 0.30 B/kWh (7 yrs.)



BOI Promoted Renewable Power Plants as of April 2011

| Fuel | No | Capacity (MW) |
|------------|-----|---------------|
| Hydro | 1 | 6 |
| Biomass | 103 | 1,358 |
| Biogas | 102 | 344 |
| Solar Cell | 67 | 363 |
| Wind | 8 | 288 |
| MSW | 8 | 44 |
| Waste Heat | 4 | 106 |
| Total | 373 | 2,509 |



Location of BOI promoted Solar Power Plant Projects

| \bigcirc | North | 11 | MW |
|------------|-----------|-----------|---------------|
| \bigcirc | Central | 146 | MW |
| \bigcirc | East | 8 | MW |
| \bigcirc | Northeast | 79 | MW |
| \bigcirc | West | 17 | \mathbf{MW} |

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Location of BOI promoted Wind Power Plant Projects

| \bigcirc | Central | 1.6 | MW |
|------------|-----------|------|------------------------|
| \bigcirc | Northeast | 287 | $\mathbf{M}\mathbf{W}$ |
| \bigcirc | South | 0.08 | MW |

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Investment Opportunities for Alternative Energy

- Availability of raw materials
- Strong demand in Thailand and region
- Strong support policy from government
- Well developed infrastructure
- Capable and efficient skilled work force
- Strong supporting industries



BOI Support Services



www.boi.go.th

Investment Matchmaking Program

1-Stop for visas & work permits: work permits in 3 hours

Industrial Subcontracting Services Vendors meet customers program (BUILD Unit)

ASEAN Supporting Industry Database

Interaction with other govt. agencies on behalf of investors

Country desks

Overseas offices

One Start One Stop Investment Center



0505

18th Floor, Chamchuri Square Building 319 Phayathai Road, Pathumwan Domestic Call: 0 2209 1100, Inter. Call: (66 2) 209 1100 E-mail: osos@boi.go.th

Services at OSOS

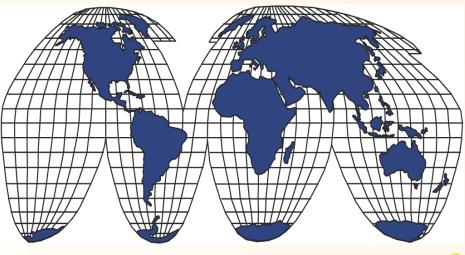
- Staff from relevant agencies available for consultations on a range of topics
- Help investors with applications to make sure investors know what is required to:
 - Apply for investment promotion privileges
 - Obtain a foreign business license
 - Tax registration
 - Complete an environmental impact assessment
 - Obtain utilities, and much more



BOI in Seoul

Seoul

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Thailand — Each Piece Fits Perfectly

