Toyota’s Global Strategy
Attaining global growth and improved efficiency

Toyota Motor Corporation
September 12, 2003
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# Agenda

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Part I  TOYOTA NOW
Global Manufacturing and Marketing in 2002

Production and Sales

Number of vehicles (thousands of units)

CY92 | CY98 | CY00 | CY02 | Projections for CY03
---|---|---|---|---
764 | 1,467 | 1,779 | 2,175 | 2,570
2,412 | 2,930 | 3,480 | 3,949 | 4,240
6,314 | 6,730 | 6,550

* Total units including Toyota/Lexus, Daihatsu, and Hino brands
Global Manufacturing and Marketing in 2002

Overseas Production and Operating Income

- **Operating income (US GAAP)*2**
- **Exchange rate (yen/dollar)**
- **Overseas production volume (calendar year) *1**

*1. Output including Toyota, Daihatsu, and Hino brands
*2. FY92-96: Japan GAAP

- **Operating income (US GAAP)**
  - FY92: ~650 (Billions of yen)
  - FY94: ~1,000
  - FY96: ~1,500
  - FY98: ~2,000
  - FY99: ~2,500
  - FY00: ~3,000
  - FY01: ~3,500
  - FY02: ~4,000
  - FY03: ~4,500

- **Exchange rate (yen/dollar)**
  - FY92: 131 yen/$
  - FY94: 122 yen/$

- **Overseas production volume (calendar year) *1**
  - FY92: ~2,000 (Thousands of units)
  - FY94: ~2,500
  - FY96: ~3,000
  - FY98: ~3,500
  - FY99: ~4,000
  - FY00: ~4,500
  - FY01: ~5,000
  - FY02: ~5,500
  - FY03: ~6,000
Part Ⅱ  TOYOTA NEXT

Attaining global growth and improved efficiency
a. Sales Strategy: North America

Steadily expanding sales towards the 2 million target

- Units manufactured in North America
- Units imported from Japan

Number of vehicles (thousands of units)

Expanding local production

Target for 2003–2004

Projection for 2005

* Market share in the US (%)

- 1998: 8.7
- 1999: 8.7
- 2000: 9.3
- 2001: 10.1
- 2002: 10.4*

Target for 2003–2004: 2,000

Projection for 2005: 8.7 8.7 9.3 10.1 10.4**
a. Sales Strategy: North America

Creating markets through new product launches

The U.S. market:

Number of vehicles (millions of units)

15

10

5

0

1990

2002

Commercial vehicle (light truck) market

Passenger vehicle market

Lexus RX330 (from March 2003)

Tundra Double Cab (scheduled launch: fall 2003)

Scion (from June 2003)

Next-generation Prius (scheduled launch: October 2003)

Corolla

Camry

No. 1 in 2002 passenger vehicle sales

xA

xB

No. 1 in 2002 passenger vehicle sales

The U.S. market:

No. 1 in 2002 passenger vehicle sales

Vehicle models and market positions:

- Corolla: No. 1 in 2002 passenger vehicle sales
- Camry: No. 1 in 2002 passenger vehicle sales
- Scion: No. 1 in 2002 passenger vehicle sales
- Tundra Double Cab: Scheduled launch in fall 2003
- Lexus RX330: From March 2003
- Next-generation Prius: Scheduled launch in October 2003

Vehicle models and market positions:

- XA
- XB

Toyota

Number of vehicles (millions of units)
a. Sales Strategy: Europe

Achieving 800 thousand sales target ahead of time

Renewal of strategic core models completed

European core models

Number of vehicles (thousands of units)

1998 1999 2000 2001 2002

Toyota sales units

Market share (%)

Target for 2005
a. Sales Strategy: Europe

Improve products (diesel-powered vehicles)

- Expanding lineup for diesel-powered vehicles
- Expanding local production of diesel engines
- DPNR launch

Diesel Engines
Rapid expansion of local production
From Jan.03: TMUK 50,000 units
TMMF 30,000 units
From 2005: Poland 150,000 units

DPNR/launch in 2003
DPNR: Diesel Particulate
- NOx Reduction system

Diesel sales ratio

Number of vehicles (thousands of units)

<table>
<thead>
<tr>
<th>Year</th>
<th>Diesel Sales Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>16%</td>
</tr>
<tr>
<td>2001</td>
<td>22%</td>
</tr>
<tr>
<td>2002</td>
<td>31%</td>
</tr>
</tbody>
</table>
a. Sales Strategy: Asia

Establish a solid position as a top-brand in major markets

→ Expand faster than the market

Number of vehicles (thousands of units)

Year-on-year growth (%)

Projection for 2005

* excluding China

<table>
<thead>
<tr>
<th>Year</th>
<th>Toyota sales units</th>
<th>Market share: 22%</th>
<th>Passenger vehicles ratio: 47%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>400</td>
<td>+26%</td>
<td></td>
</tr>
</tbody>
</table>

Toyota sales units  Year-on-year growth: market  Year-on-year growth: Toyota
a. Sales Strategy: China

Manufacturing and marketing to be strengthened in response to market growth

Aggressive introduction of models

Product lineup
- Luxury SUV
  - Land Cruiser/Prado
- VIOS
- Daihatsu (compact)
- Compact
- Large & luxury
- Crown

Establish full product lineup
Establish Toyota brand

Production capacity
- 2002: 50,000 units/Year
- 2003: 25,000 units/Year → 115,000 units/Year
- 2004: 30,000 units/Year
- 2005: 50,000 units/Year
- 2006:
- Several hundred thousand units/Year
## a. Sales Strategy: Japan

### Domestic market and Toyota sales

<table>
<thead>
<tr>
<th>Year</th>
<th>Total market excluding minivehicles (thousands of units)</th>
<th>Toyota's share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>3,500</td>
<td>40%</td>
</tr>
<tr>
<td>1999</td>
<td>3,600</td>
<td>40%</td>
</tr>
<tr>
<td>2000</td>
<td>3,700</td>
<td>40%</td>
</tr>
<tr>
<td>2001</td>
<td>3,800</td>
<td>40%</td>
</tr>
<tr>
<td>2002</td>
<td>3,900</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Projection for 2005:**

- Market share: maintaining and expanding high-level over 40%
a. Sales Strategy: Japan

Toyota Sales by Category (excluding minivehicles)

Toyota’s share (overall):

- **2002**: 42.4%
- **January to July, 2003**: 42.8%

### Market Share (%)

- **3 Box Large & Luxury**
  - 2002: 76.5%
  - 2003: 77.9%

- **Minivan, Cab Wagon**
  - 2002: 45.8%
  - 2003: 59.6%

- **2 BOX**
  - 2002: 41.8%
  - 2003: 37.4%

- Toyota’s share: for the year 2002
- Toyota’s share: January to July, 2003
a. Sales Strategy: Japan

Reorganization of sales channel and Lexus introduction

- Lexus brand: New introduction
- Toyota brand: 5 → 4 channels

Future positioning

Price range

From August 2005, 180 dealers / 4 models

Tradition

Toyota dealers: Luxury vehicles
Toyopet dealers: Medium-sized vehicles
Corolla dealers: Compact vehicles

New Netz: Develop new market segment (from spring of 2004)

Areas to be changed

Advanced / originality

Tradition
b. Building Global Development and Optimum Production Systems

Pursue optimum product lineups by region

Core models
- Camry
- Corolla
- Yaris/Vitz
- Avensis
- Hilux
- Previa/Estima

Region-specific models
- Tacoma
- Camry
- Corolla
- Yaris/Vitz
- Avensis
- Hilux
- Previa/Estima
b. Building Global Development and Optimum Production Systems

Research and development system:

Global network through linkage between Japan (core technology) and regional bases (local needs)

- Toyota Technical Center in the US
- TMEM R&D Group
- CALTY (Design Center in the US)
- ED2 (Design Center in France)
- Toyota Technical Center/Design Headquarters (Head Office)
- Higashifuji Technical Center

★ New R&D Centers in Asia and Australia (Thailand and Australia)

日本 核心技术研发

Development

Collaboration

Toyota Technical Center/Design Headquarters (Head Office)

Higashifuji Technical Center

☆☆☆☆☆

New R&D Centers in Asia and Australia (Thailand and Australia)
b. Building Global Development and Optimum Production Systems

Domestic/overseas outputs

- **UK plant**
- **Kentucky plant expansion, USA**
- **Canadian plant expansion**
- **West Virginia plant, USA**
- **Indiana plant, USA**
- **Chengdu plant, China**
- **French plant**
- **Polish plant**
- **Tianjin plant, China**
- **Indiana plant, USA**

Expanding Overseas production

Maintaining Domestic production

Number of vehicles (thousands of units)

- 1992: 764
- 1994: 2,570
- 1996: 2,175
- 1998: 1,051
- 2000: 1,346
- 2002: 1,467
- Projection For 2003: 6,730

- Total output including Toyota/Lexus, Daihatsu and Hino brands

* Expanding Overseas production

* Maintaining Domestic production

* Total output including Toyota/Lexus, Daihatsu and Hino brands
b. Building Global Development and Optimum Production Systems

Strengthen production in major regions

**< North America >**
- New factory in Texas (from 2006)
- Local production expansion of engines
  - Start of production of TMMAL engines (from April 2003) and capacity expansion (from 2005)
  - TABC engine assembly (from 2005) etc.

**< Europe >**
- Capacity expansion through the first 3 work-shifts in the UK and French factories
- JV with PSA Peugeot (from 2005)

**< China >**
- Production in cooperation with China FAW Group (from the fall of 2003)
- Diesel-powered engine production at the new factory in Poland (from early 2005)

**Present**
- **148**
- **166**

**Plan**
- **50**
- **71**
- **5**
- **25**
b. Building Global Development and Optimum Production Systems

IMV Project (from 2004)

A network base for manufacturing and export of pickup trucks and multipurpose vehicles.

- Consolidating production output on a global scale and creating a mutual supply network

To over 80 countries and regions

- South Africa / Argentina: Interregional production bases
- Thailand: global production base
- Other Asian countries: Engines and main components production bases
- To Europe / Africa
- To South America
- To South America / Argentina
- To South America / Argentina / South Africa
- To over 80 countries and regions

- Argentina
- Japan
- Indonesia
- The Philippines
- Other countries
- India
- Thailand

- : Pickup truck / multipurpose vehicles
- : Engines and main components
b. Building Global Development and Optimum Production Systems

**UMR activity** (Unit and Material Manufacturing Reform)

Attain “cost reductions,” “quality improvement” & global deployment through standardization and simplification

1. Development ~ production preparation process
2. Product structure, production facilities
3. Next-generation production method

**Innovation**

**Goals:**
- Lead time and costs: 50% reduction
- Quality: the world’s best

Example: Process innovation in engine development – the use of digital engineering –

**Product design**
1. Synchronize product and process designs

**Preparing production**
2. Verification on prototype model line and creation of data base
3. Distribute 3D solid data globally

**Start of commercial manufacturing**

- Reduce number of initial design changes
- Shorten lead time for production preparation
- Reduce the man-hour of overseas support processes

Existing Process: 32 months ⇒ **After innovation: 16 months**
c. Future Growth through Market Creation

Global-scale motorization

- The U.S. market expansion
  - Growing population

- Advances in the Eastern & Central European and Russian markets

- Strong growth of Asian markets

The automobile industry still holds great growth potential
c. Future Growth through Market Creation

TECHNOLOGY DEVELOPMENT

Leading-edge technologies
- Nanotechnology
- Materials technology
- Biotechnology
- Energy technology

Next-generation technologies
- Engine
- Body
- Electronics
- Transmission
- Chassis
- Environment
- Safety
- IT

MARKETING

- Assessing customer needs
- Propose visions

Products focused on market creation
- Comfort
- Kindness
- Excitement
c. Future Growth through Market Creation

Next-generation technology development: Environment

Next-generation Prius and Next-generation hybrid system

Fuel cell hybrid vehicle
Toyota FCHV
(limited marketing launched since December 2002)

Achieve both superior environmental and driving performance
c. Future Growth through Market Creation

Next-generation technology development: Safety

- Improvement of real safety performance

Passive Safety
- Earning Euro NCAP 5★ (New Avensis)
- Addressing various types of crash situations
- Use of peripheral monitoring technology
  - Radar /PreCrash safety system
  - (commercialized in Japan in February 2003)

The world’s first

Active Safety
- Field of vision assistance
- Intelligent AFS*, etc.

The world’s first

- Autonomy driving support
  - VSC, Navigation/Telematic etc.
- Network driving support

* AFS: Adaptive Front-lighting System
c. Future Growth through Market Creation

Growth potential of auto industry in the diversified society

Improve customer satisfaction and realize growth

1. Management: growth strategy
   Speed and diversification

2. Competition: pursue efficiency
   Optimum production and development systems
   Continuous cost reductions

3. Value: technological innovation
   - Investments in a wide range of R&D
   - Establish global standard
   - Achieve both superior environmental and driving performance

Adapting to the markets

Market creation

Value chain
   ITS / Finance, etc.

Sustainability
   Social responsibility / building trust

Passion
   Enthusiasm and conviction
Part III  Financial Strategy

Towards a long-term, stable growth
Profit Earnings and Efficiency

Growth and targets in operating income ratio & ROE

- Operating income ratio:
  - FY99: 6%
  - FY00: 5.6%
  - FY01: 6.1%
  - FY02: 7.7%
  - FY03: 8.2%
  - FY04 (forecast): 8.3%
  - Target: 9%

- ROE:
  - FY99: 6.8%
  - FY00: 7.1%
  - FY01: 9.6%
  - FY02: 7.8%
  - FY03: 10.4%
  - FY04 (target): 10%

IF: Forex rates in FY04 = Forex rates in FY03

(ROE: 12.3%)
* 1Q = 1st Quarter

(Billions of yen)

(US GAAP)
Cost Reduction

Enhanced cost reduction effects

Billions of yen

FY99 FY00 FY01 FY02 FY03 FY04 (forecast)

Unconsolidated Subsidiaries

* FY99 – FY02: Japan GAAP

(US GAAP)
Long-term, Stable Growth

Accumulated net income and growth in EPS

- Accumulated net income
- EPS (net income per share)

* FY94 – FY97: Japan GAAP

(US GAAP)
*1. Free cash flow = Current net income + Depreciation costs - Capital expenditures
   See Annex I for a reconciliation of free cash flow to net cash provided by operating activity
*2. R&D Expenses for FY99 – FY02: JAPAN GAAP
   *(US GAAP)*
Change in Share Ownership

Shareholdings by banks

VS

Increase in foreign shareholders (listed on NY and London Stock Exchanges in September 1999)

Increase in individual shareholders (reduction in stock unit in August 2000)

Banks

[Sept. 30, 1999]

34%

[March 31, 2003]

15%

Dramatic drop

Change in Share Ownership

34% vs 15%
Speedy Decision Making and Strengthened Corporate Governance

Faster operations/strengthened monitoring by various stakeholders

- General shareholders’ meeting
- Board of directors
- President
- Managing Officers
- Disclosure Committee
  - NY/London stock listing
    - Disclosure based on SEC standards
    - Identical information disclosure in New York, London and Tokyo
- International Advisory Board
- Labor-Management Council & Forum
- Social Contribution Program Committee
- Corporate Ethics Committee
- Stock Option Committee

Accounting audits based on US & Japan auditing standards
Board of statutory auditors
  - More than half are external auditors

<Internal/external auditing>

<Internal information management>

<Monitoring>
IR Activities and Brand Value Enhancement

Investors & shareholders

IR Financial information

PR Corporate information

Media

CR Technical information

Motor Show

Brand value enhancement
Part IV Technology Strategy
Diversified Energy Scenario

Source: NEDO
Future Image of Powertrain Development

- **Internal combustion engine vehicles (ICE)**
- **Internal combustion engine hybrid (ICE-HV)**
- **Fuel cell vehicle**

Total world vehicle ownership (in billions)

- 2000
- 20X0
- Year

Year 2000: 1 billion vehicles

Year 20X0: 2 billion vehicles

Legend:
- **ICE**
- **ICE-HV**
“Right vehicle” for the “Right place” at the “Right time”

Clean diesel engine vehicle

Gasoline hybrid engine vehicle

Fuel cell hybrid vehicle

NOx and PM regulatory figures for Europe

regulatory figures for Japan

hydrogen gas station
Approach to Environmental Problems

Environmental problems

Approach through life cycle of vehicle

Production

Usage

Disposal

Recycle
Example of LCA: CO$_2$ Replacement

Gasoline engine vehicle

- Disposal stage
- Usage stage
- Product stage
Example of LCA: CO₂ Replacement

Disposal stage
Usage stage
Product stage

Gasoline engine vehicle
Diesel engine vehicle
Gasoline hybrid vehicle
Example of LCA: CO₂ Replacement

- Gasoline engine vehicle
- Diesel engine vehicle
- Gasoline hybrid vehicle
- Fuel cell hybrid vehicle

Disposal stage
Usage stage
Product stage
Toyota’s Technology Developments

Diesel Vehicle

Gasoline Hybrid Vehicle

Fuel Cell Hybrid Vehicle (FCHV)

2003 AVENSIS with DPNR

1997 PRIUS

2003 Next generation PRIUS

2003 TOYOTA FCHV

2003 TOYOTA FCHV BUS
Comparison of the CO₂ Emissions for Diesel and Gasoline Vehicles

CO₂ replace in Avensis

- 2.0L Gasoline engine
- 2.0L Diesel engine

(g/km)
- 0
- 100
- 150
- 200

CO₂ replace
Comparison of NOx and PM* Regulatory Figures in Euro4

*particulate matter

(g/km)

0.025

PM

0.08

NOx

0.25 (g/km)

Diesel regulatory

Gasoline regulatory
Diesel Engine with DPNR

- Diesel Engine
- Common Rail System
- EGR Valve
- EGR Cooler
- Exhaust Port Injector
- Turbo Charger
- Exhaust Gas
- Oxidation Catalytic Converter
- DPNR Catalytic Converter
Emissions of Common Rail Engine with DPNR

Euro3 (Current)

Current average Diesel without DPNR

Euro4 ('05)

New Avensis with DPNR

(NOx)

(EM mode)
Toyota’s Technology Developments

Diesel Vehicle
- 2003 AVENSIS with DPNR

Gasoline Hybrid Vehicle
- 1997 PRIUS
- 2003 Next generation PRIUS

Fuel Cell Hybrid Vehicle (FCHV)
- 2003 TOYOTA FCHV
- 2003 TOYOTA FCHV BUS
PRIUS: The World’s First Mass-Produced Hybrid Vehicle
Innovative advances in fuel economy, surpassing conventional gasoline-fuel engine

Drastically cleaner emissions

Double Fuel Economy

Reduce Emissions by 90%
HV Technology Matrix

**Strong**
- THSII
- NG Prius
- SU-HV
- THS Prius
- THS-C:ESTIMA

**Mild**
- Japanese Vehicle A
- Japanese Vehicle B
- THS-M:CROWN

**Series HV**
**Parallel HV**
**Series/Parallel HV (HV of Hybrids)**

*EV Drive

non EV Drive

* : propelled by electric motor only
Next Generation PRIUS with New Hybrid System – THS II –
Hybrid Synergy Drive

Fuel Economy

- Existing hybrid system
- Improvement of conventional engines

Hybrid Synergy Drive

Fun to Drive

Current conventional engines
Acceleration Performance and Fuel Efficiency in New PRIUS

Comparison of Take-off acceleration performance and Fuel efficiency:
- Good: Current PRIUS
- Bad: Japanese HV A

Trade-off between Fuel Efficiency and Acceleration performance:
- COROLLA (L4 1.3L)
- COROLLA (L4 1.5L)
- CAMRY (L4 2.4L)
- ALLION (L4 1.8L)
- MARK II (L6 2.5L)

Next generation PRIUS
Toyota’s Technology Developments

Diesel Vehicle
- 2003 AVENSIS with DPNR

Gasoline Hybrid Vehicle
- 1997 PRIUS
- 2003 Next generation PRIUS

Fuel Cell Hybrid Vehicle (FCHV)
- 2003 TOYOTA FCHV
- 2003 TOYOTA FCHV BUS
# Development of TOYOTA FCHV

<table>
<thead>
<tr>
<th>Year</th>
<th>Model Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>The FCHV with hydrogen-absorbing alloy tank at the EVS-13 (Osaka)</td>
</tr>
<tr>
<td>1997</td>
<td>The world's first FCHV with methanol reformer</td>
</tr>
<tr>
<td>2001</td>
<td>The FCHV-3 with hydrogen-absorbing alloy tank</td>
</tr>
<tr>
<td>2001</td>
<td>The FCHV-4 with high-pressure hydrogen tanks</td>
</tr>
<tr>
<td>2001</td>
<td>The FCHV-5 with CHF reformer</td>
</tr>
<tr>
<td>2002</td>
<td>FCHV-BUS1</td>
</tr>
<tr>
<td>2002</td>
<td>Limited marketing with the delivery of TOYOTA FCHV</td>
</tr>
<tr>
<td>2002</td>
<td>FCHV-BUS2</td>
</tr>
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</table>
Insistence on In-house Development

Next generation PRIUS (2003)

TOYOTA FCHV (2002)
In-house Development of Toyota Hybrid System

Engine & Motor & Generator

Power control unit
In-house Development of FCHV System

Independent In-house Development of Total System Including Fuel Cell Stacks

Power control unit

Motor

Air compressor

HV EUC

TOYOTA FC Stack

Secondary battery

Power control unit

Air compressor

High-pressure hydrogen storage tank

In-house developed components

TOYOTA FC Stack
Advantage of In-house Development

Ⅰ. World leading-technology
Ⅱ. Fastest commercialization in the world
Ⅲ. Truly effective cost reduction
Conclusion

1. Toyota’s technology strategy for environmental problems

   (1) The mind set of “right vehicle” for the “right place” at the “right time”
   (2) LCA as method for evaluating vehicle environmental impact

2. Insistence on in-house development
   source of Toyota’s competitive power
Toyota’s Global Strategy
Attaining global growth and improved efficiency

Toyota Motor Corporation
September 12, 2003