PACIFIC ECONOMIC COOPERATION COUNCIL

PACIFIC FOOD SYSTEM OUTLOOK 2005-2006

A REVOLUTION IN FOOD RETAILING


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Pacific Food System Outlook 2005-2006

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FOREWORD

Revolutionary change occurring in the retail food sector of the PECC's less-developed economies has significant ramifications for the region's entire food system. Assessing these impacts is the focus of this year's report, generated from the May 2005 Pacific Food System Outlook (PFSO) annual meeting in Kunming, China.

In the region's less developed economies, modern supermarkets now represent 10 to 50 percent of total food sales, rapidly approaching the 70 to 90 percent levels of developed markets. The growth of modern supermarkets is driven by rapid urbanization, economic specialization, income growth and liberalization of foreign investment. Modern supermarkets are generating centralized procurement and distribution systems, and contributing to the emergence of specialized suppliers. The more efficient and modern food system developing as a result of these changes is broadening the geographic range of firms, lowering consumer costs, raising food safety standards, and transforming the face of traditional agriculture and traditional food-marketing channels.

This report builds on the work of the PFSO participants in previous years. In 2003, we identified rapid urbanization in the region's developing countries as the most significant demographic change shaping the Asia-Pacific food system in the next 50 years. Modern supermarkets can better meet the demands of rapid urbanization in densely populated areas and consumers who are more affluent, place a higher value on convenience, and demand reliability and safety in a complex, impersonal marketing system. The 2004 PFSO report recommended investing in domestic supply chains, including transportation infrastructure, to more efficiently connect domestic food-producing areas with urban supermarkets.

This year's PFSO meeting brought project participants together with experts in the supermarket industry in key low- and-middle income economies in the region: China, Indonesia, Mexico, and the Philippines.

The program would not have been possible without the assistance of Dr. Thomas Reardon of Michigan State University, who shared his vast knowledge of the supermarket industry and helped to identify regional experts to participate in the meeting.

The leadership of the China National Committee for Pacific Economic Cooperation (CNCPEC)—Amb. Guo Jiading, executive vice-chairman; Mme. Yang Peiqing, vice chairman; Mr. Hong Fuzeng, vice chairman; and Amb. Jiang Chengzong, secretary-general—did an outstanding job of hosting this year's meeting in Kunming, the capital of Yunnan Province. Li Zeren, deputy secretary general, with support from the Panlong District of the Kunming Municipal People's Government, Yunnan, China, skillfully administered the three-day program, field trip and post-meeting activities in Beijing. Thanks are also in order to the Kunming Municipal People's Government, Yunnan, China; the Yunnan Jinma Real Estate

Group Co, Ltd.; and the Kunming Jinma Green Economy Pilot Area for their support; and to the Jinmayuan Group for its support and sponsorship of the dinner on May 12.

The backbone of this project is the individual economists from the 17 PECC participating economies. We are grateful to all of them for their presentations at our meeting, as well as their dedication and support for this unique multinational project.

We also recognize the continuing financial support of Farm Foundation, USDA's Economic Research Service, the various country PECC committees and the PECC Secretariat in Singapore. We are particularly grateful to Betty Chin of the PECC Secretariat for her support and assistance.

We are grateful for the support of Euromonitor and Farzana Moshin, Asia-Pacific research manager, who provided insight into the packaged foods market in the Asian region. We also benefited from Euromonitor's ongoing analysis of the region's retail food sector.

We appreciate the support of John Dyck, manager of ERS's Southeast Asia Emerging Markets Project who, with Dennis Voboril of USDA's Foreign Agricultural Service in Manila, identified and supported meeting participants from Southeast Asia.

Finally, special thanks go to Joe Yacinski and Carol Hardy of Yacinksi Design; Anne Kelleher; Mary Thompson of Farm Foundation; and Praveen Dixit, Mary Bohman, and Neil Conklin of ERS for their important support of this project.

Walter J. Armbruster

Walter J. Armbruster
President, Farm Foundation and
Chairman, *Pacific Food System Outlook*, PECC

William T. Coyle

William T. Coyle
Senior Economist, Economic Research Service, USDA
Senior Coordinator, *Pacific Food System Outlook*, PECC

November 2005

COORDINATORS AND FORECASTING PANEL

PECC COORDINATORS

Walter J. Armbruster
Chairman, *Pacific Food System Outlook* and
President
Farm Foundation USA
walt@farmfoundation.org

William T. Coyle
Senior Coordinator, *Pacific Food System Outlook*
Senior Economist, Market and Trade Economics Division
Economic Research Service
U.S. Department of Agriculture
wcoyle@ers.usda.gov

AUSTRALIA

Don Gunasakera
Head, International Branch
Australian Bureau of Agriculture and Resource Economics
dgunasekera@abare.gov.au

CANADA

Margaret Zafiriou
Senior Economist
Economic and Industry Analysis Division
Strategic Policy Branch
Agriculture and Agrifood Canada
zafirim@agr.gc.ca

CHILE

Eugenia Muchnik
Professor, Catholic University of Chile
Program Head, Agroindustrial Area
Fundación Chile
emuchnik@fundacionchile.cl

CHINA

Li Zeren
Deputy Secretary General
China National Committee for Pacific Economic Cooperation Business Forum
cncpec@netchina.com.cn

Dinghuan Hu
Professor
Institute of Chinese Agricultural Economics
Chinese Academy of Agricultural Sciences
dhhu@163bj.com

Luo Yunbo
President
Food Institute of China's Agricultural University
LYB@cau.edu.cn

INDONESIA

Alan D. Stewart
Director Hypermart
PT Matahari Putra Prima Tbk.
alan.stewart@matahari.co.id

Ronnie S. Natawidjaja
Director
Center for Agricultural Policy and Agribusiness Studies (CAPAS)
Padjadjaran University, Bandung
ronnien@telkom.net

JAPAN

Keiji Ohga
Professor
Nihon University
ohgaky@mx2.ttcn.ne.jp

Gen Furuhashi
Researcher
The University of Tokyo
Graduate School of Agricultural and Life Sciences
agfuruha@mail.ecc.u-tokyo.ac.jp
gyennn@serenade.plala.or.jp

KOREA

Myong-Keun Eor
Research Fellow
Center for Agricultural Policy
Korea Rural Economic Institute
myongeor@krei.re.kr

MALAYSIA

M. Nasir Shamsudin
Professor of Food and Agricultural Economics
Department of Agribusiness
Universiti Putra Malaysia
nasir@econ.upm.edu.my

Jinap Selamat
Dean
Faculty of Food Science and Biotechnology
Universiti Putra Malaysia
jinap@putra.upm.edu.my

MEXICO

Rigoberto Acosta Tapia
Director
Development Trust Funds Related to Agriculture (FIRA)
Bank of Mexico.
racosta@correo.fira.gob.mx

Gerardo López Noriega
General Coordinator for Trade Promotion and Foreign Market Development
Mexican Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA)
glopez.aserca@sagarpa.gob.mx

Vanesa Oliva Bautista
Assistant to the General Coordinator for Trade Promotion and Foreign Market Development
Mexican Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA)
voliva.aserca@procampo.gob.mx

NEW ZEALAND

Mark Walton
Senior Economist
New Zealand Institute of Economic Research
mark.walton@nzier.org.nz

PERU

Alvaro Ortiz
Dean
Department of Economics and Planning
Universidad Nacional Agraria La Molina
aortiz@lamolina.edu.pe

THE PHILIPPINES

Salvador P. Catelo
Dean
College of Economics and Management
University of the Philippines Los Banos
scatelo@laguna.net

Carlos Cabochan
General Manager
CVC Supermart, Inc.
Caloocan City
cvcarlos@mozcom.com

Nerlita M. Manalili
Manager of Research and Development
Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)
nmm@agri.searca.org

Maria Ramona C. Singian
Marketing Specialist
Agricultural Trade Office-Manila
Ramona.Singian@usda.gov

SINGAPORE

Farzana Moshin
Asia Pacific Research Manager
Euromonitor
farzana.mohsin@euromonitor.com.sg

CHINESE TAIPEI

Ching-Cheng Chang
Research Fellow
The Institute of Economics
Academia Sinica
emily@econ.sinica.edu.tw

THAILAND

Ruangrai Tokrisna
Associate Professor
Department of Agricultural and Resource Economics
Faculty of Economics
Kasetsart University, Bangkok
ruangrai.t@ku.ac.th

UNITED STATES

James Blaylock
Associate Director
Food and Rural Economics Division
Economic Research Service
U.S. Department of Agriculture
jblayloc@ers.usda.gov

Mary Bohman
Director
Resource and Rural Economics Division.
Economic Research Service
U.S. Department of Agriculture
mbohman@ers.usda.gov

John Dyck
Senior Economist
Market and Trade Economics Division
Economic Research Service
U.S. Department of Agriculture
jdyck@ers.usda.gov

Fred Gale
Senior Economist
Market and Trade Economics Division
Economic Research Service
U.S. Department of Agriculture
FGALE@ers.usda.gov

Tom Reardon
Professor
Michigan State University
reardon@msu.edu

VIETNAM

Pham Quang Dieu
Institute of Agricultural Economics
Ministry of Agriculture and Rural Development
phamquangdieu@yahoo.com
phamquangdieu@gmail.com

Tran Van Cong
International Cooperation Department
Ministry of Agriculture and Rural Development
congt.htqt@mard.gov.vn

A REVOLUTION IN FOOD RETAILING[1]

Introduction

Rapid economic growth and urbanization are transforming the retail food sector in the developing economies of the Asia-Pacific region. At the center of this transformation is the spread of modern self-service food stores: supermarkets, hypermarkets, discount and club stores, and chain convenience stores.[2]

Through economies of scale in procurement and distribution, these modern chain stores reduce consumer food costs. They offer consumers lower prices, greater convenience, and higher-quality and safer food in more complex, oftentimes congested, urban markets. As management theorist Peter Drucker asserted more than 50 years ago, marketing, not manufacturing, is the "most effective engine of economic development" (Hagen 2002). In the Asia-Pacific region, the spread of modern food chains is reducing food costs and having profound effects on consumers, food suppliers, and the broader economy.

This report assesses the ongoing transformation of the retail food sector and its implications for the Asia-Pacific food system. The information is based on presentations made at a three-day conference in Kunming, China, May 10-13, 2005, and other sources, including data and information collected by Euromonitor.[3]

Current Status of Supermarkets in the Region

Retail food sales in the PECC region are forecast at $1.8 trillion in 2005, with about 75 percent ($1.35 trillion) being sold at modern supermarkets and 25 percent ($450 billion) at traditional outlets. Just three countries—China, Japan, and the United States—account for three quarters of total retail food sales and an even higher share of supermarket sales (figure 1).

But generally, supermarket sales have grown the most in the region's developing economies. The most rapid rate of sales growth is in Southeast Asia (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam), China, and Mexico. In terms of absolute growth, however, the United States is still a leading market for increased supermarket sales, 1999-2006 (table 1).

Supermarket store units and sales are increasing rapidly in China. The first supermarkets opened there in 1990. Today, supermarkets account for 30 percent of retail food sales in urban areas (Yunbo 2005). Supermarkets accounted for 11 percent of national retail food sales in 2002, compared with less than one percent 10 years earlier. With 30 to 40 percent annual growth in sales in 2003-04, up from 20 to 30 percent in 1998-2002 (Xiang et al. 2004), supermarkets are expected to generate 50 percent of retail food sales in China by 2012 (Hu 2005).

In Indonesia, the supermarket share of retail food sales jumped from 22 percent in 2000 to 30 percent in 2004 (Stewart 2005). The supermarket share of packaged and processed foods, including dairy products, has risen much higher—dairy products, 45 percent; canned food, 64 percent; frozen food, 72 percent; and pasta, 88 percent (USDA 2004).

Supermarkets are also spreading rapidly in Mexico, accounting for more than 50 percent of retail food sales in 2003 (Acosta 2005), up from less than 5 percent in the mid-1990s (Reardon 2004b).

In the developing parts of the region, supermarkets first appear in the biggest cities, catering to a

In the Asia-Pacific region, the spread of modern food chains is reducing food costs and having profound effects on consumers, food suppliers, and the broader economy.

1 The Pacific Food System Outlook panel acknowledges the extraordinary contribution of Professor Thomas Reardon to this year's project, through his extensive knowledge of the global supermarket phenomenon and his participation in our program in Kunming, China, May 2005.

2 "Supermarket" is used to refer to all modern-format retail outlets, including convenience stores (Reardon et al. 2005).

3 Assessing the role of supermarkets in developing economies is difficult because data for food sold through traditional marketing channels is often unavailable. Furthermore, supermarket sales data may not distinguish between food and general merchandise, and within the food category, may include packaged foods but not fresh produce.

DEFINITIONS

CONVENIENCE STORE: A store selling a wide range of goods that has extended operating hours, with the following characteristics: opens at 9 AM or earlier on six or more days a week; closes at 8 PM or later on six or more days a week; closes for lunch no more than one day a week. These stores also handle two or more of the following product categories: pre-recorded videos (for sale or rent); take-out food (ready-made sandwiches, rolls, or hot food); newspapers or magazines; cut flowers or potted plants; and greeting cards.

COOPERATIVE: Societies affiliated with the worldwide federation of cooperatives, founded in 1895 to promote fair trading. In each country where cooperatives function there are a number of societies that control a series of retail outlets.

HYPERMARKET: A store with a retail sales area of more than 2,500 square meters (1 square meter = 10.76 square feet) and at least 35 percent of its selling space devoted to nonfoods. These stores are frequently located on out-of-town sites or in shopping centers as anchors.

INDEPENDENT GROCER: A retailer owning and operating one or more (but fewer than 10) retail outlets, who is not affiliated with any other business. These are mainly family businesses or partnerships, where food accounts for at least 50 percent of total retail sales.

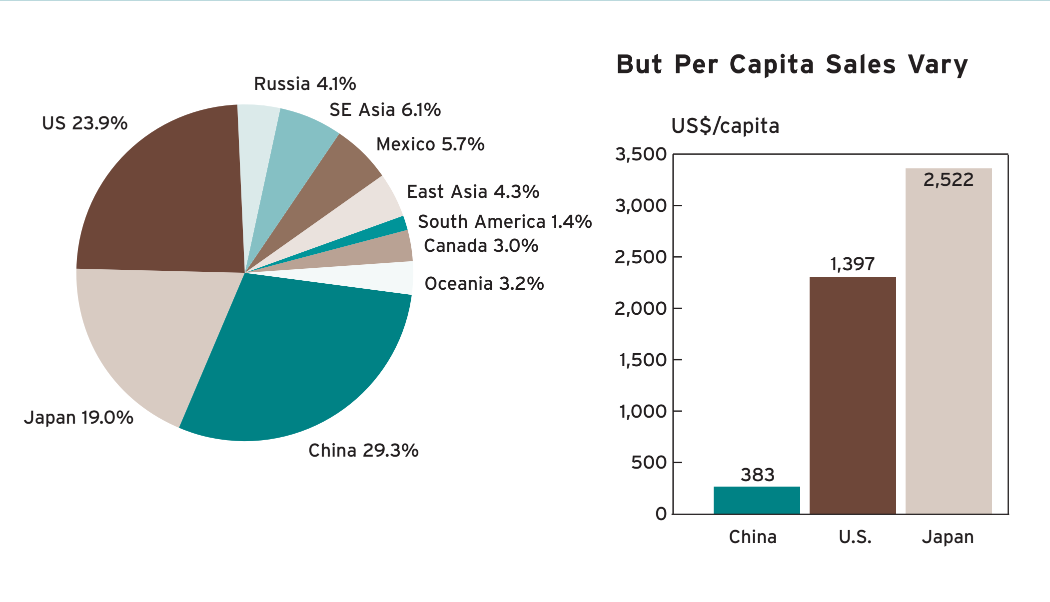
MOM-AND-POP SHOP: A small owner-operated business. In developing economies, many people acquire their daily food items from these neighborhood stores.

SUPERMARKET: A store with a selling area of 400 to 2,500 square meters, that sells mostly foodstuffs and everyday commodities (at least 70 percent of sales). However, smaller (under 100 square meters) and larger (over 2,500 square meters) supermarkets are common in some Asian countries.

WET MARKET: A collection of stalls where vendors sell fresh produce, often including stalls selling freshly cooked foods. Usually open-air facilities.

Source: Euromonitor

Figure 1 **Region's Retail Food Sales Concentrated in Three Countries, 2003**



Source: Table 1

limited number of high-income consumers. Stores are then opened in smaller cities and towns, increasingly serving a middle-to-lower-income clientele.

- In Mexico, the supermarket share of food sales in the largest cities is higher than the national average. While more supermarkets are opening outside major cities in Mexico, there are practically no supermarkets in towns with fewer than 15,000 people (Schwentesius and Gomez 2002).
- In Indonesia, the number of modern supermarkets is increasing rapidly in the largest cities, such as Jakarta, Bandung and Surabaya. This is driven by both the aggregate purchasing power and better-developed infrastructure in the cities (Euromonitor 2004b).
- In China, more than 80 percent of supermarket outlets are in the East, primarily in large urban areas. The opening of supermarkets in the western part of the economy has been slow because of China's large, dispersed rural population and an underdeveloped infrastructure that adds to distribution costs (USDA 2005a). However, the leading foreign chain, Carrefour, plans to open one-third of its new stores in China in the central and western areas of the country.

A key challenge for supermarkets is to raise their share of fresh produce sales, which can account for higher-than-average profits. As a "destination category," fresh produce attracts customer interest and loyalty and influences other store purchases (Shepherd 2005). When supermarkets first open in developing economies, they tend to specialize in easily storable packaged and processed foods for which the logistics are less complex, gradually moving into fresh fruits and vegetables, meats, and fish. The share of fresh produce in these stores significantly lags other categories for some time. This is the case in China, where the supermarket share of fresh fruits and vegetables, meats and fish is only 10 to 20 percent in the major cities (Hu et al. 2004). In Mexico, the supermarket share of fresh fruits and vegetables is estimated at 28 percent, still behind the 40 percent share of street and municipal markets (Acosta 2005).

Despite the rapid spread of supermarkets, traditional outlets—wet markets, small variety stores or "mom-and-pop" shops, and street vendors—still dominate the retail food sectors of most developing economies in the PECC region. However, they are facing stiffer competition and increasing pressures to change, particularly in urban areas.

In China, traditional kiosks and fruit and vegetable stands, still can be found at many apartment complexes and neighborhoods. These outlets offer an interesting mix of fresh produce, drinks, snacks, hardware, bicycle parts, telephone calling cards, bill-paying services, and household items (USDA 2005). In Mexico, more than 40 percent of the retail food sector is *tiendas de abarrotes* ("mom-and-pop" shops), *centrales de abasto* (public open-air markets), and *tianguis* (mobile street markets). *Abarrotes* are the "provider of choice for certain products like bread, tortillas, confectionery, meat, poultry, fish, produce, soft drinks, and alcoholic beverages in regions that have low population density or low incomes." (Euromonitor 2004c) Many Mexican consumers still purchase fresh produce in *centrales de abasto* and *tianguis*, where prices tend to be lower, in part because the lack of rent or taxes keeps overhead costs low (Schwentesius and Gomez 2002).

Supermarkets and convenience stores in the region's high-income economies—Australia, Canada, Japan, New Zealand, and the United States—are well established, accounting for 70 percent to 90 percent of the retail food market. Compared with supermarket sales growth in most developing economies, the rate of growth in the United States and Canada is generally slower and it is negative in Japan. Growth has been more brisk in Australia and New Zealand. Firm concentration is highest in Singapore, Canada, New Zealand, and Hong Kong, China (table 2). Convenience stores have a relatively large share of the retail food sectors of the high-income and densely populated economies in East Asia— Japan, 14 percent; Hong Kong, 11 percent; Singapore, 15 percent; Chinese Taipei, 19 percent; and Korea, 13 percent (Euromonitor).

In the United States, the transition from traditional to modern supermarkets took place after World War II, with supermarkets defined as self-serve stores selling a full line of packaged goods and perishables and having an emphasis on high volume and low prices. Supermarkets more than doubled their share of the retail food market in just 10 years, to 70 percent in 1959 from about 30 percent in 1949. The U.S retail food market was largely modernized by 1960 but continued to evolve.

Traditional supermarkets gave

Table 1 Retail Food Sector Indicators

PECC Economies	Population 2005[1] Million	Per capita GDP 2002[2] $/capita	Size of the middle class*[3] Million	Size of the middle class*[3] Percent of Pop.	Penetration of modern format stores[4] Percent	Size of retail food market[5] Billion US$	Growth in sales modern format stores 1999-2006[6] Percent
AUSTRALIA	20.1	28,260	18.0	90	64.7	47	64
BRUNEI	0.4	18,600	0.4	90	NA	NA	NA
CANADA	32.8	29,480	30.0	90	92.1	50	38
CHILE	16.0	9,820	6.0	40	72.8	8	27
CHINA	1,306.3	4,580	274.0	21	11.2	492	94
COLOMBIA	43.0	6,370	6.0	15	46.0	16	8
ECUADOR	13.4	3,580	2.0	15	47.2	NA	NA
HONG KONG, CHINA	6.9	26,910	6.0	90	71.9	6	12
INDONESIA	242.0	3,230	36.0	15	30.4	31	107
JAPAN	127.4	26,940	125.0	98	88.9	320	-17
KOREA	48.6	16,950	39.0	80	35.6	48	93
MALAYSIA	24.0	9,120	10.0	40	71.0	3	105
MEXICO	106.2	8,970	40.0	38	57.0	96	144
NEW ZEALAND	4.0	21,740	4.0	90	84.3	7	110
PERU	27.9	5,010	8.0	27	15.0		NA
PHILIPPINES	87.9	4,170	22.0	25	16.6	23	100
RUSSIA	143.4	8,230	65.0	45	53.1	69	NA
SINGAPORE	4.4	24,040	4.0	90	73.1	3	37
CHINESE TAIPEI	22.9	18,000	18.0	80	70.0	24	36
THAILAND	64.2	7,010	13.0	20	53.2	29	157
UNITED STATES	295.7	35,750	257.0	87	91.3	402	24
VIETNAM	83.5	2,300	8.0	10	12.0	13	200
PECC REGION	2,721.0	10,101	988.0	36	NA	1,687	NA

NA - Not available
1. United Nations.
2. Purchasing power parity basis; World Bank Development Indicators, 2004.
3. Various sources, including authors' estimates.
4. Reardon et al. 2005; for Indonesia, Alan Stewart (personal communication); and Euromonitor. data primarily for 2003.
5. Euromonitor data for 2003.
6. Sales growth data primarily from Euromonitor.

way to a diversity of newer formats, including supercenters or hypermarkets that combine food and general merchandise, convenience stores, and membership "club" or "cash-and-carry" stores (Hagen 2002). Other developed economies followed a similar pattern, with unique characteristics. For example, in Japan, the combination of limited housing space and food storage capacity and policy restrictions on store size led to more robust growth in the convenience store sector relative to larger formats (Ohga 2005).

Demand-Side Drivers and Obstacles to Growth

INCOME GROWTH. The most important variable driving the spread of supermarkets is income growth. Unlike in mature markets, supermarkets in developing economies have significant growth potential. Per capita income levels are relatively low and consumers are still on the lower rungs of dietary upgrading, both in terms of demand for more calories and for higher-quality foods. As per capita incomes approach $10,000, supermarket penetration reaches about 50 percent. At income levels above $20,000, the supermarket share tends to level off at 70 to 90 percent (figure 2).

Income in the region's developing economies is growing at almost twice the pace of the developed economies, lifting more and more people into the middle classes. There are close to one billion middle-class consumers in the PECC region, with 40 percent of those consumers in developing economies. China has 200 to 300 million middle-class consumers, about equal to the U.S. population and representing the lion's share in the region. Mexico's and Indonesia's middle classes combined total about 70 million (table 1).

The transition to modern supermarkets may not be easy for certain populations. Poor consumers, bound by custom and economic constraints, are reluctant to abandon traditional outlets. They are accustomed to smaller purchases and more freuent shopping trips, not the large "stocking" once-a-week purchases common for higher-income consumers who have cars, more disposable income, and significant home storage and refrigeration capacity. Traditional outlets may be a less expensive

Figure 2 **Supermarket* Penetration Rises with Per Capita Income**

* Supermarket refers to all modern-format retail outlets, including convenience stores.
Source: Table 1.

Table 2 Supermarket Concentration in PECC Region, 2003

	Share of Food Market		Share of Food Market		Share of Food Market
AUSTRALIA		**CANADA**		**CHILE**	
Woolworths Ltd.	20.6	Loblaws Companies	35.7	Distribución y Servicios D&S SA	16.7
Coles Myer Ltd.	17.3	Sobey's	14.9	Cencosud SA	11.1
Bakers Delight Holdings Ltd.	0.4	Metro Inc.	7.7	Supermercados Unimarc SA	2.0
Brumby's Bakeries Holdings Ltd.	0.2	Canada Safeway	6.0	Supermercados San Francisco	2.0
Share of top 4	**38.5**	A&P Canada	5.6	Supermercados Montserrat	1.9
		Share of top 5	**69.9**	**Share of top 5**	**33.7**
CHINA		**COLOMBIA**		**HONG KONG, CHINA**	
Shanghai Lianhua	1.3	Exito	4.8	Dairy Farm International Holdings Ltd.	24.0
Carrefour	1.0	Carulla-Vivero	3.2	AS Watson & Co Ltd. (Park 'n Shop)	19.9
Wal-Mart	0.6	Olimpica	2.4	China Resources Enterprise Ltd.	3.3
Shanghai Hualian Group	0.8	Carrefour	1.6	Li & Fung Ltd.	3.3
Shanghai Nong-gong-shang	0.5	Alkosto	1.0	**Share of top 4**	**50.5**
Share of top 5	**4.2**	**Share of top 5**	**13.0**		
INDONESIA		**JAPAN**		**KOREA**	
Carrefour	1.0	Ito Yokado	6.1	LG Mart C Ltd.	5.6
Alfa	1.0	Aeon	5.5	Bogwang Family Mart	2.9
Hero	0.7	Daiei	3.1	Korea 7-Eleven	2.9
Indomaret	0.6	Seiyu	1.6	Buy The Way Co Ltd.	1.1
Matahari	0.5	UNY	1.5	Mini Stop Korea	1.0
Share of top 5	**3.8**	**Share of top 5**	**17.8**	**Share of top 5**	**13.5**
MALAYSIA		**MEXICO**		**NEW ZEALAND**	
Dairy Farm International Holdings Ltd.	8.1	Wal-Mart de Mexico	23.4	Foodstuffs, Auckland Ltd.	20.1
The Store Corp Bhd	5.9	Soriana	7.0	Foodstuffs, South Island Ltd.	12.5
Carrefour Malaysia	4.7	Comercial Mexicana	6.8	Foodstuffs, Wellington Ltd.	12.3
Tesco Stores (Malaysia) Sdn Bhd	4.5	Gigante	6.1	Foodland Associated Ltd.	16.4
Parkson Corp Sdn Bhd	1.8	**Share of top 4**	**43.3**	**Share of top 4**	**61.3**
Share of top 5	**25**				
PHILIPPINES		**SINGAPORE**		**THAILAND**	
SM Supermarket	1.7	Dairy Farm International Holdings Ltd.	35.3	Tesco Lotus	16.7
Robinsons Supermarket	0.6	NTUC FairPrice Cooperative Ltd.	31.0	Casino Group	11.5
Grand Union	0.5	Carrefour SA	5.0	Makro	11.2
Phil. Seven	0.4	Prime Supermarket	1.8	Carrefour	4.7
Monterrey Farms	0.4	**Share of top 4**	**73.1**	Tops Supermarket	3.4
Share of top 5	**3.6**			**Share of top 5**	**47.5**
CHINESE TAIPEI		**UNITED STATES**		**VIETNAM**	
President Chain Store Corp.	9.5	Wal-Mart	15.4	Saigon Co-op	1.0
Presicarre Corp. (Carrefour)	6.3	Kroger	10.7	Kinh Do Corporation	0.4
Taiwan Family Mart Co Ltd.	3.0	Albertson's	7.4	Duc Phat	0.2
RT-Mart International Ltd.	2.5	Safeway	6.8	**Share of top 3**	**1.6**
Wellcome Taiwan Company Ltd.	2.3	Ahold USA, Inc.	5.8		
Share of top 5	**23.6**	**Share of top 5**	**46.1**		

Source: Euromonitor; U.S. data from Progressive Grocer.

option for poor consumers than a modern supermarkets when the overall cost of shopping is taken into account: accessibility by foot, bicycle, or public transportation; the cost of food items; the value of informal credit arrangements; and other non-price factors. Poor consumers also may view large modern supermarkets as offering inappropriate product sizes and product assortments, and clerks who are indifferent to them (Booz-Allen Hamilton 2003).

HIGHER PRODUCE PRICES IN SUPERMARKETS. Another obstacle to the transition to modern supermarkets is the tendency for fresh produce (not, however, packaged goods) to be more expensive in supermarkets than in traditional markets early in the development process. This is supported by limited survey data from Ecuador (potatoes); China (pork, winter melon, and cucumbers) (Xiang Bi et al. 2004); Indonesia (cabbage, carrots, chili peppers, potatoes, and shallots) (figure 3); and Mexico (oranges, lemons, plantains, salad tomatoes, onions, and potatoes) (Schwentesius and Gomez 2002). In Thailand, for example, the price of a 29-item market basket of regularly consumed food and nonfood items was 5 to 10 percent lower in traditional markets than in supermarkets and hypermarkets in three cities in April-March 2004 (Schaffner et al. 2005).

Higher produce prices in supermarkets are a transitory phenomenon, with price differentials narrowing as supermarkets continue to spread and their supply chains become more developed. In Chengdu, China, for example, supermarkets are setting vegetable prices 5 percent to 20 percent lower than prices in wet markets (Zhang et al. 2004). This pattern is prevalent in the higher-income economies like Korea (figure 4).

Price is not the only obstacle, however, as some consumers at all income levels simply prefer to shop at open-air markets where they expect to find higher quality meats and vegetables. Some Chinese consumers, for example, "prefer to buy the freshest products possible, and often purchase chickens and fish live, to be butchered on the spot"(USDA 2005a).

Other consumers, however, are concerned about food safety, and value the hygienic standards and safety guarantees provided by modern retail stores. For instance, a survey in Vietnam showed that greater food safety was the leading reason why consumers chose to shop in super- and hypermarkets. The proportion of consumers able to pay a price premium for food safety is likely to rise as incomes rise (Dieu and Cong 2005).

CONCENTRATION OF FOOD DEMAND IN URBAN AREAS OF DEVELOPING ECONOMIES. Urbanization in the less developed markets is a key driver accelerating the spread of supermarkets. The PECC region's urban areas are expected to grow by more than half a billion people in the next 20 years, almost three times the growth rate of the total population (figure 5). Three-quarters of the growth will be in the less-developed economies of the region, with much of the growth arising from rural-urban migration. Urban populations are projected to increase by 310 million in China, 72 million in Indonesia, and 27 million in Mexico (figure 6). National incomes are increasingly concentrated in urban areas, the home for most of the middle- and upper-income classes and the source of a disproportionate share of the nation's gross domestic product.

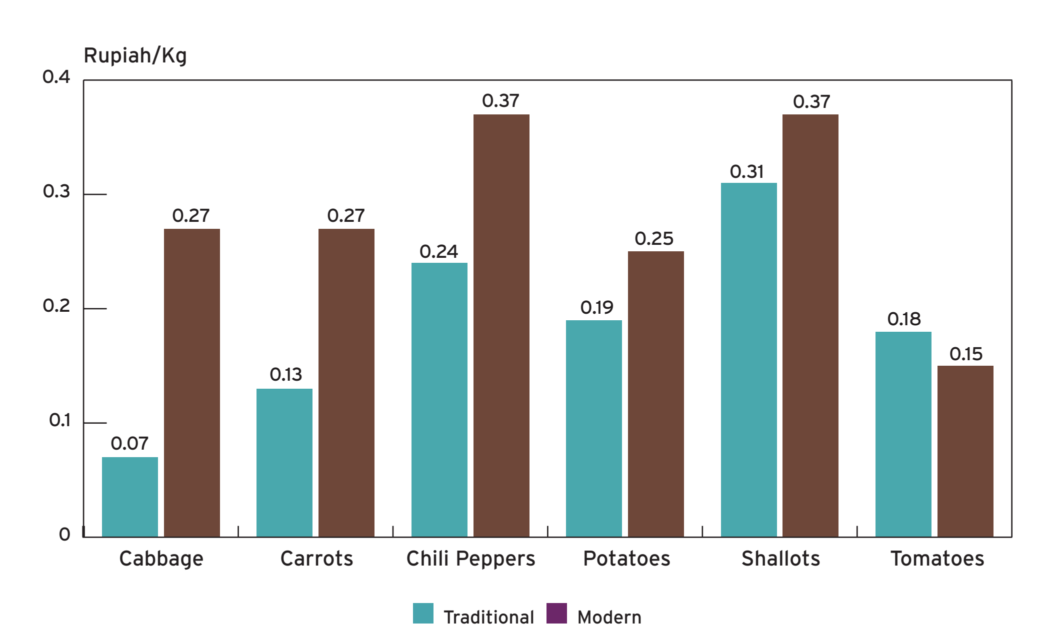
Urbanization has two important consequences for the food system. First, consumers in urban areas have higher average incomes and less time to shop and prepare meals. They have a strong preference for a one-stop shopping experience.

Second, greater quantities of food must be brought into the city to feed expanding populations. This means more trucks and other modes of transportation contributing to traffic congestion and adding additional stress to infrastructure that cannot readily be expanded (Argenti 2000). Enhanced supply chains supporting supermarkets are better able to facilitate the physical flow of products and to keep transaction costs down than are traditional channels.

AGING POPULATIONS AND IMMIGRATION. In the developed economies, demographic factors are

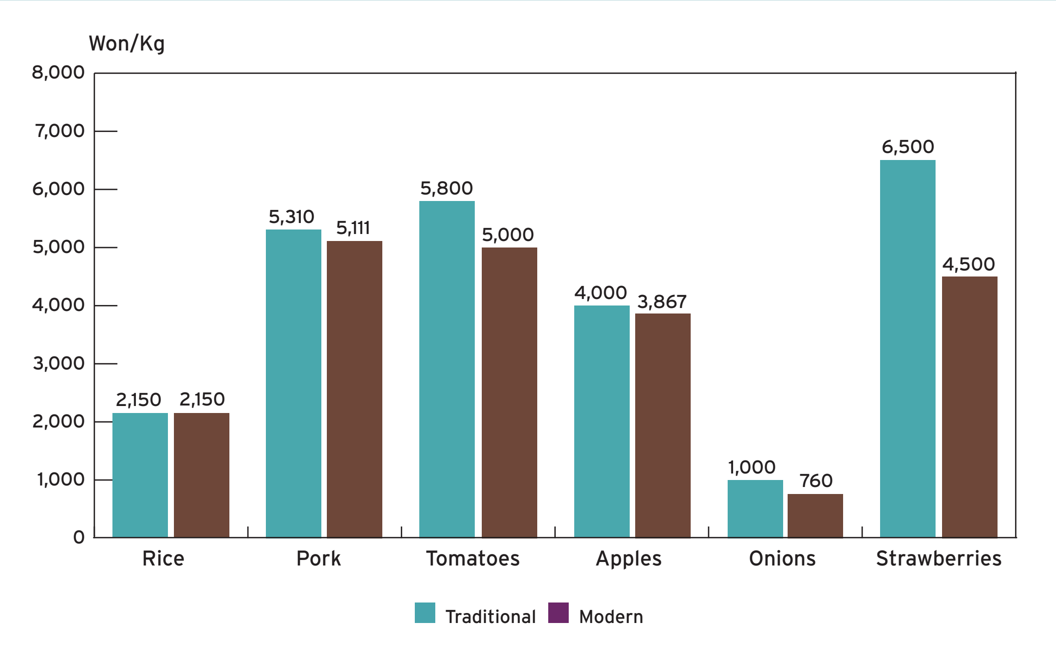
Enhanced supply chains supporting supermarkets are better able to facilitate the physical flow of products and to keep transaction costs down than are traditional channels.

Figure 3 Prices for Fresh Vegetables in Indonesia Mostly Higher in Modern Outlets, 2003



Source: Chowdhury et al. 2005.

Figure 4 Prices in Korea Lower in Modern Outlets, 2004



Source: Eor 2005.

Table 3 **Top 10 International Grocery Retailers and Presence in**

Retailer	Home Economy	Banner Sales[1] Billion US$	Grocery Sales Billion US$	Grocery Sales Percent	Foreign Sales Percent
1. Wal-Mart	USA	309.4	139.2	45	22
2. Carrefour	France	113.0	84.8	75	51
3. Ahold	Netherlands	89.4	75.1	84	8
4. Tesco	UK	68.2	50.5	74	21
5. Ito-Yokado[3]	Japan	63.2	41.7	66	32
6. Rewe	Germany	54.8	41.6	76	28
7. Kroger	USA	58.6	41.0	70	0
8. Metro Group	Germany	77.8	38.1	49	48
9. Schwarz Group	Germany	45.9	37.6	82	42
10. Aldi	Germany	45.9	37.6	82	40

1. Retail banner sales are the sum of the sales of all stores under a retailer's banner, including sales from the retailer's own stores, the full retail sales of consolidated companies, plus the sales of franchised stores and the stores of independents operating under the respective banner.
2. Wal-Mart has a 42.4 percent stake in Seiyu, with an option to raise its stake to 50.1 percent.
3. Retail banner sales include sales for entire international retail network regardless of local ownership.

Source: Planet Retail: http://www.planetretail.net/Home/PressReleases/PressRelease.asp?PRID=30774

more important than income growth. Japan's population is aging rapidly and is expected to begin shrinking in 2007. Supermarket chains there face more intense competition and declining margins.

Populations in Australia, Canada, New Zealand, and the United States are also aging, but at a slower pace. Their population growth rates are boosted by high rates of immigration and the higher fertility rates of recent immigrants. The outlook for supermarkets in these economies is more robust. But adjustments will be needed to serve a larger share of older and retired consumers, as well as changes in the population's ethnic composition. In the United States, the Hispanic population is expected to increase to 19 percent in 2020, up from 12.5 percent in 2003 (Blaylock 2005). Similar shifts are expected in Australia, Canada, and New Zealand where Asians are the fastest-growing ethnic group.

Supply-Side Drivers

THE ROLE OF FOREIGN INVESTMENT. Foreign investment has played an important role in the region's retail revolution, providing capital, technology transfer and organizational innovation. The introduction of the hypermarket format in the region's less-developed economies was a recent development, with rapid expansion in the last 15 years.

Prominent international supermarket chains—Wal-Mart, Carrefour, and Tesco—are now heavily invested in the PECC region (table 3). But the concentration of the top 30 global food retailers still is quite low in Asia (19 percent) and Latin America (29 percent), compared with Europe (69 percent). By 2003, the top companies accounted for one-third of the modern global food market and had operations in 85 countries, compared with only 15 in 1993. Carrefour only began investing in the PECC region in 1989 (Taiwan), Wal-Mart in 1991 (Mexico), and Tesco in 1998 (Thailand) (Vorley 2004).

A number of factors motivate companies to expand off shore. A primary one is higher expected returns in less-developed economies, where consumer incomes are rising quickly and middle classes are expanding, compared with saturated, low-margin markets at home. This is a particularly important motivating factor for European-based companies that tend to be the most

PECC region, 2004

Presence in PECC Economies
Canada, China, Japan (Seiyu)[2], Korea, Mexico, USA
China, Colombia, Indonesia, Korea, Malaysia, Singapore, Chinese Taipei, Thailand
Ecuador, Indonesia, USA
China, Japan, Korea, Malaysia, Chinese Taipei, Thailand
Australia, China, Japan, Korea, Malaysia, The Phillipines, Singapore, Chinese Taipei, Thailand, Mexico, Canada, USA
USA
China, Japan, Russia, Vietnam
Australia, USA

active in foreign markets.

Obviously, foreign investment cannot occur unless the market is receptive. Market deregulation and policy reform in the less developed economies have been significant stimulative factors in the last 15 years.

In China, for example, restrictions on foreign direct investment in the retail sector were relaxed in 1992, allowing joint ventures in some urban centers in the coastal provinces: Beijing, Shanghai, Tianjin, Guangzhou, Dalian, and Qingdao. Eventually, all provincial and regional capitals were opened to foreign retailers. By 2002, up to 65 percent foreign participation was allowed in joint ventures, and foreign investment in wholesale and logistics services was liberalized. In December 2004, China committed to fully liberalizing its retail sector (Xiang Bi et al. 2004).

Carrefour was the first foreign chain to enter China, introducing the first hypermarkets in Shanghai and Beijing in 1995. In 1996, Metro formed a joint venture with Jinjiang Group, establishing Metro Jinjiang Cash & Carry Co., Ltd. and opening its first store in Shanghai. Then Wal-Mart (1997), Auchan (2002), and Tesco (2004) entered the market. Chains from other parts of the region also are investing in China, including those from Japan, Thailand, Korea, Singapore, and Hong Kong. Foreign chains now account for 27 percent of all supermarket sector sales (Hu et al. 2004). Wal-Mart and Carrefour both have plans for rapid expansion in China. Wal-Mart plans to have a total of 90 outlets by the beginning of 2007, up from 47 as of July 2005, and Carrefour expects to open 15 hypermarket a year in the next several years (figure 7).

Foreign firms began to invest in Indonesia in1998 when restrictions on wholesale and retail trade were lifted. That was during the 1997-99 Asian financial crisis, and Indonesia faced economic uncertainty and a strongly devalued currency. Yet some foreign investors were attracted to the cheaper asset prices and construction costs afforded by their stronger currencies. These cost savings motivated foreign firms to invest in other Asian economies affected by the financial crisis, including Korea and Thailand. This time frame is when the French retailer Continent entered the Indonesian market and introduced the hypermarket. Continent was later acquired by Carrefour (Euromonitor 2004b), now the leading supermarket chain in Indonesia. Despite adverse economic conditions, the modern retail food sector expanded at double-digit rates in Indonesia during the financial crisis (1997-1999), while the traditional sector declined sharply (Krisnamurthi and Fauzia 2004).

Foreign investment regulations in Indonesia were largely eased in the late 1990s, but some restrictions remain, requiring both domestic and foreign modern-format food stores to locate at specific distances from traditional outlets depending on floor size. Developers are also required to allocate 10 to 20 percent of large shopping areas to traditional or small-and-medium-scale enterprises (*The Jakarta Post*, April 8, 2005). Restrictions are more severe outside provincial capitals (Stewart 2005).

As in China, the foreign firms in Indonesia, Carrefour and Makro, have plans for rapid expansion in 2005, a 25 percent increase in the number of outlets by year-end compared with year-end 2004. Local firms are also expanding rapidly in 2005, adding both the supermarket and hypermarket formats (Matahari, 200 percent; Giant, 50 percent) and convenience stores (Alfamart, 80 percent; Indomart, 60 percent) (figure 8).

In the mid- to late-1990s, Mexico showed signs of robust economic growth after going through two serious recessions, one after defaulting on its external debt in 1982 and another after the sharp peso devaluation of 1994. Only by the end of the 1990s, did real per capita income rise above 1980 levels. Wal-Mart opened its first non-U.S. outlet in Mexico City in 1991. Carrefour followed in 1994, in an alliance with Gigante. Auchan and Costco also entered the Mexican market.

All were responding to a more open economy for foreign investment. Competition intensified, leading to consolidation among domestic firms (Schwentesius and Gomez 2002). Regional chains became national and moved into smaller cities and towns. Formats were adjusted to local market circumstances.

Other PECC economies also liberalized their markets in the 1990s. Korea and Vietnam lifted restrictions in 1996, allowing foreign joint ventures in supermarkets for the first time. Motivated by the Structural Impediments Initiative talks with the United States in 1989, Japan has gradually eased restrictions in its retail sector. It has reduced protection for small shops, and allowed retail operators to expand floor space and to extend hours of operation. Since the bursting of the real estate bubble in 1990, declining land values have also encouraged investment in the Japanese retail food sector.

In addition to higher expected returns, other factors motivating investors, include low labor costs; and the availability of public services and well-developed transportation infrastructure: roads, railroads, inland waterways, ports, and airports. The major international chains have broader objectives than investment in a single country. Short-term losses may be acceptable to gain a foothold in an important market that will enhance profitability of the broader system. Global sourcing is increasingly important for retailers coping with stiff competition in their home market. For example, Wal-Mart's global purchasing office in Shenzhen, China, serves the company's entire system, including its 3,702 outlets in the United States (Wal-Mart website), where a large share of the non-food products sold are made in China.

Challenges facing global retailers include intense competition from national retailers, such as Ito-Yokado in Japan, Matahari in Indonesia, E-Mart in Korea, and Lianhua in China (Deloitte Research 2004). Some companies, Ahold being one example, have pulled back from investments in Asia and Latin America. Delhaize of Belgium is likely to pull out of Asia. In March 2005, Carrefour announced the sale of eight stores in Japan to Aeon Co., a major Japanese retail chain; and all its assets in Mexico, which include 29 hypermarkets plus two due to open in 2005, to the Chedraui Group, a leading Mexican retailer. Auchan, the third-largest retailer in France, exited Mexico in 2003, selling its assets to the second-largest Mexican food retailer. Wal-Mart is having a hard time rehabilitating its Japanese affiliate, Seiyu Ltd., and is rethinking the applicability of its low-price strategy for Japan's more status-conscious consumer. Germany's Metro Group, which entered the Japanese market in 2002, has opened far fewer than its 50 planned stores.

CENTRALIZED PROCUREMENT AND DISTRIBUTION: Once a supermarket chain has more than 10 outlets in a particular geographic area, it begins to play a more prominent role in its own procurement and distribution functions. It also tends to diversify its product lines and services.

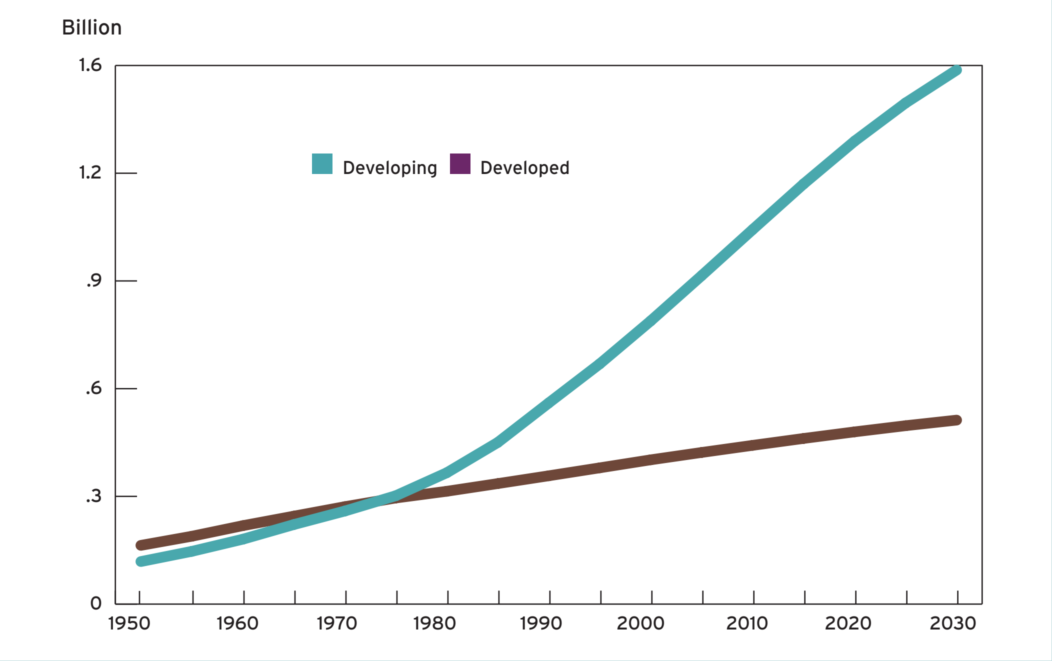
To meet the goals of reducing costs and satisfying consumers, modern supermarkets with multiple outlets invest in centralized warehousing or in distribution centers (DC). This may raise transportation costs to some extent, but it lowers overall costs by reducing handling, speeding delivery, and, in the case of fresh produce, reducing post-harvest losses and shrinkage.

It also increases in-store and head-office productivity, and through the application of information technology improves sales monitoring and inventory management.

In China, more distribution centers are appearing as firms expand the number of outlets. China Resources Enterprises, with 456 retail food outlets in Hong Kong and southern China, built two large distribution centers in 2002, cutting logistics costs by 30 to 40 percent. Centralization usually begins with nonfoods and processed foods that are easily stored. Lianhua and Hualian built dry goods distribution centers beginning in the mid-1990s and fresh food distribution centers more recently in Shanghai. Hualian has five distribution centers in Shanghai, Beijing and the Jiangsu areas. Wal-Mart began to centralize its operation in southern China in 2002, and its operations in Dalian and Shenyang in 2003. Carrefour established a dry goods distribution center in China in 2003 (Hu et al. 2004).

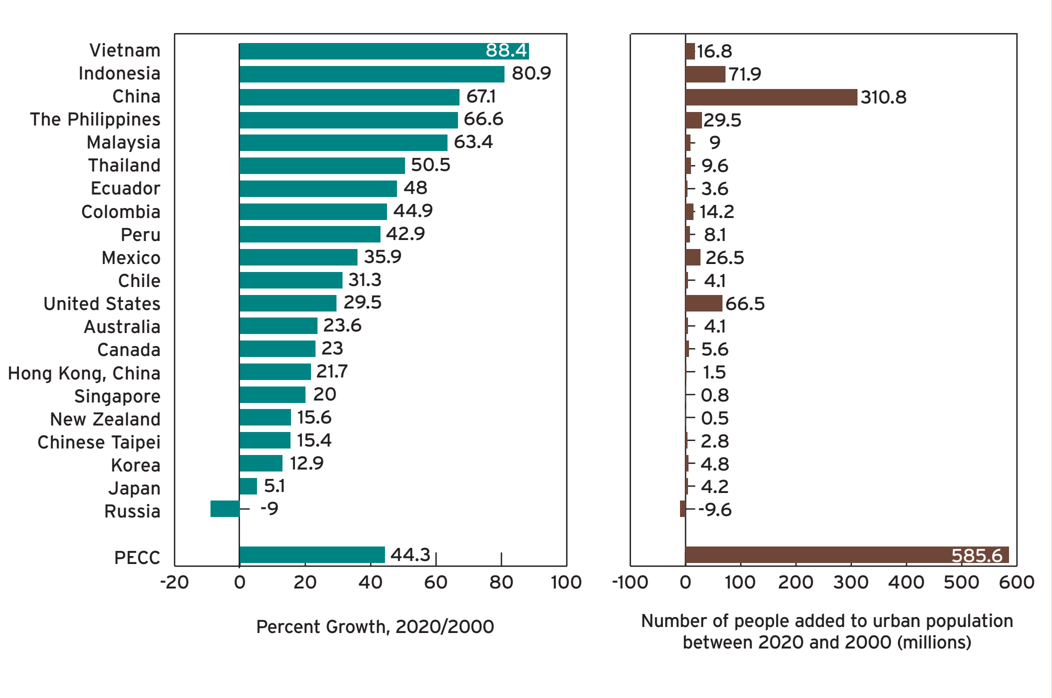
While most medium-sized chains still procure on a store-by-store basis from wholesale markets and dedicated wholesalers, some have opened distribution centers: Xiaobaiyang had three distribution centers with computerized inventory systems for dry goods, processed foods, and textiles in 2003. As a result, the company has reduced the number of food

Figure 5 **Growth in Developing Economies' Urban Areas Challenges Food Sector Logistics**



Source: UN

Figure 6 **Urban Population Growth Most Rapid in Less Developed Economies in PECC**



Source: UN

suppliers it works with from 1,000 to 300. Smaller chains that cannot afford their own distribution centers are creating joint ventures and/or participating in collective arrangements with other companies to procure and distribute both dry goods and fresh produce (Hu et al. 2004).

In Indonesia, three large supermarket firms—Carrefour, Hero, and Matahari—have their own distribution centers (Reardon 2004a; USDA 2004). Mexico's Comercial Mexicana, with 176 outlets in Mexico City and central Mexico, opened a distribution center north of Mexico City in 2003 that handles 80 percent of its dry goods. Wal-Mart opened a distribution center in Monterrey in July 2003 and a 220,000-square-meter facility for frozen goods in 2004. U.S.-owned Supermercados Internacionales HEB, with 20 outlets in northern Mexico, services stores on both sides of the Rio Grande from a 27,900-square-meter perishable and dry goods distribution center north of Monterrey (USDA 2005b; Malaga 2002).

Adding products and services allows firms to spread risk over a larger product portfolio and pursue different pricing strategies, including deep discounts on some food items, to attract customers. Supermarkets constantly expand products and services to meet the fickle and changing demands of time-constrained consumers. Carrefour's hypermarkets stock an average of 70,000 food and nonfood items (Carrefour website). Wal-Mart is expanding into hard liquor and organic and natural foods. The competitive pressure to provide one-stop shopping has led to complementing merchandise with an endless array of new services, including juice and sushi bars, salad bars, insurance offices, financial and banking services, real estate offices, pharmacies, DVD rental outlets, photo services, dry cleaners, Internet services, and gasoline stations.

BROADENING THE GEOGRAPHIC REACH OF PROCUREMENT: The introduction of a distribution center broadens the potential geographic range of a firm's procurement operations beyond the local area to more distant regional, national or foreign suppliers, and eliminates some traditional channels. Distribution centers' use of standardized equipment and organizational systems—shipping containers, tractor-trailers, pallets, forklifts, and bar-code readers and inventory management systems—facilitate domestic and international transactions with large suppliers and other distribution centers.

For example, Wal-Mart is sourcing avocados through its distribution center in Mexico to supply stores in other countries, including China (Reardon et al. 2005). Metro and Auchan in Chengdu, China procure exotic vegetables from their Shanghai headquarters, more than 2000 kilometers away (Zhang et al. 2004). Indonesia's leading supermarket chain, Carrefour, has a trade division that searches for Indonesian products that it can export to company outlets outside of Indonesia (Euromonitor 2004b). It also imports products from around the world for its Indonesian outlets. Many of the nonfood items that Carrefour sells in its Indonesian hypermarkets originate in China, where it is also the leading foreign supermarket chain.

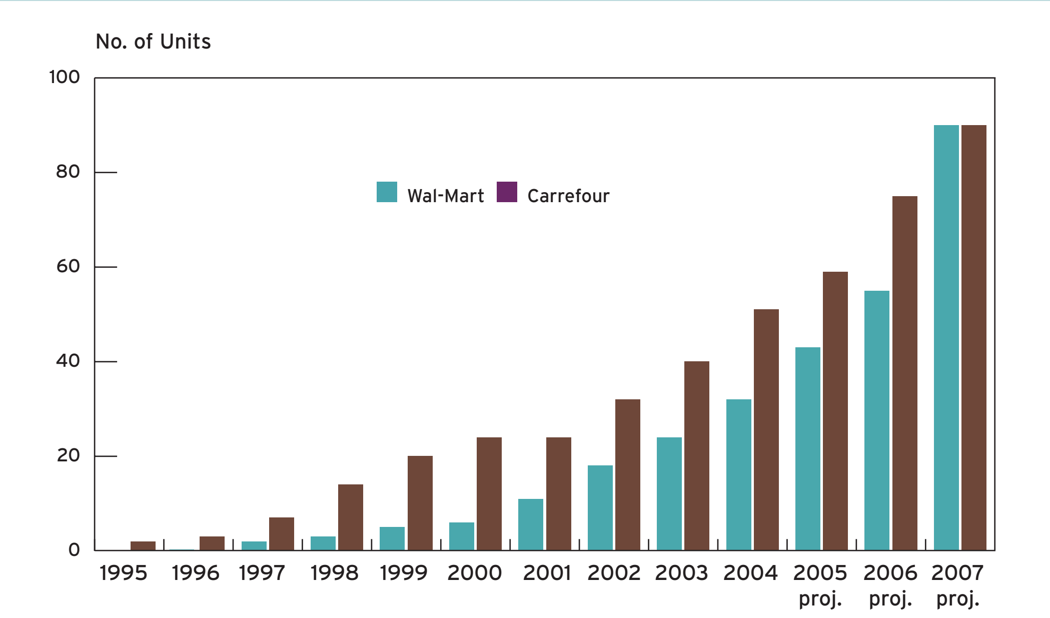
Also enhancing foreign trade is the fact that many developing economies are modernizing port facilities that are in or near large coastal urban areas. This may make it less expensive for some retail food chains to buy food products from distant foreign sources than from nearby domestic producers, who are handicapped by inadequate refrigeration and transportation infrastructure.

Nevertheless, most of the food products supermarkets sell are processed locally, using either domestic and/or imported raw materials to meet local consumer preferences. On a global basis, only 6 percent of processed food sales are imported compared with 16 percent of major bulk agricultural commodities (Regmi and Gehlhar 2005).

Supermarkets are most likely to import products like fresh fruits and vegetables; highly processed products with an exotic appeal, like wines or cheeses, and livestock products whose production requires forage area and grain supplies found in a few land-extensive economies like the United States, Australia, Canada, and New Zealand. For highly processed products, food manufacturers prefer to locate production facilities close to the point of consumption. Foreign affiliate sales for U.S. food manufacturers, for example, surpass by five times the exports of similar products (Bolling 2004).

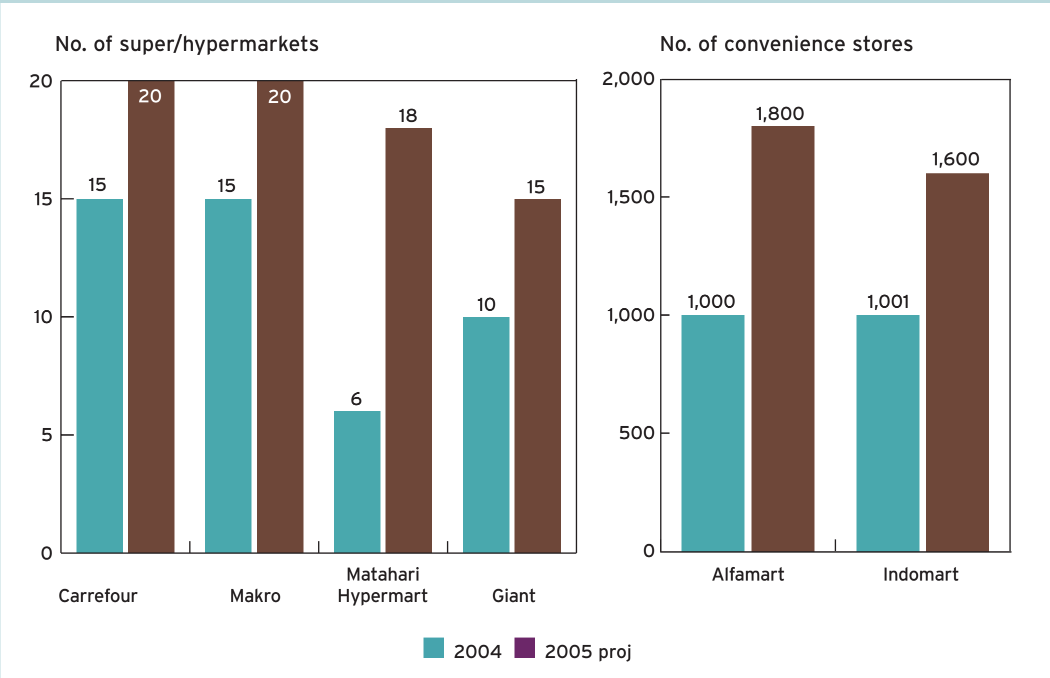
In China, imported products account for less than 5 percent of supermarket sales, with a relatively higher share in the large coastal cities. Despite the strength of the expatriate community in Beijing,

Figure 7 Major Foreign Supermarket Firms Expanding Rapidly in China



Source: Carrefour and Wal-Mart annual reports; and Reuters, July 25, 2005

Figure 8 Modern Retailers Also Expanding Rapidly in Indonesia



Source: "RI retailers trying to modernize, branch out." *The Jakarta Post*. April 8, 2005.

the share of imported food in hypermarket sales rarely exceeds 2 to 3 percent. Domestically owned chains in the Shanghai area are even less likely to sell imported foods (USDA 2005a). Imported products sold by Indonesia's modern supermarket sector may account for as little as 5 percent to as much as 30 percent of food sales (USDA 2004).

THE ROLE OF SPECIALIZED SUPPLIERS: In response to the centralization of supermarket procurement in developing economies, specialized suppliers are emerging to provide larger product volumes at lower cost. These suppliers are more responsive to supermarket demands for higher and more consistent quality, steady supplies, and product innovation.

This restructuring has happened most rapidly with dry goods and processed and semi-processed foods, but it is also affecting fresh produce. Supermarket chains' have a strong incentive to improve sales of fresh produce, which generally lag other categories, but provide for greater overall profitability.

In all less-developed economies, there exists a technologically-advanced and competitive segment of the food sector. This sector is well adapted to modern supermarkets and centralized procurement systems, including those of large multinational food companies operating in the region, like Nestlé, the Lotte Group, and Unilever (Moshin 2005).

Other segments of the agricultural economy need to adapt. Options may include becoming larger and more efficient; finding niche markets that have the potential to generate higher per-hectare returns; joining forces with other small farmers and processors in cooperatives and associations; entering into contractual arrangements with suppliers; supplementing farm income with off-farm income; or going out of business.

Modern supermarkets naturally favor technologically advanced suppliers. But in a developing economy, a significant share of supplies must come from the traditional sector, which is fragmented and is often burdened by inadequate transportation and cold chain infrastructure.

Specialized suppliers are overcoming these procurement challenges by helping modern supermarket chains to do business with small-scale producers and traditional market channels. These suppliers assume responsibility for collecting production, packaging, assuring steady supply, and, in some cases, meeting traceability objectives (Hu et al. 2004). Depending on the extent of their market leverage, they may also bear additional costs, such as the expense of in-store promotions, payment of slotting fees, and acceptance of more burdensome credit terms, such as repayment of credit in 30-90 days.

These specialized suppliers are accountable for product quality, consistency, and food safety—factors that strongly influence a supermarket's business reputation. Consumer loyalty is hard-won and difficult to keep. Consumers have many choices in the foods they buy, where they shop and where to eat out. A supermarket chain knows that it will be blamed for a lapse in quality or food safety, even if it comes from an upstream link in the supply chain. A single incident could drive away consumers, not just from the outlet in which the incident occurs, but from all of a chain's outlets, causing significant short-term, and longer-term consequences.

Some specialized suppliers are large farms that supplement their own production by contracting with small producers, and buying from intermediaries, including traditional wholesale markets. Others are companies that specialize in procurement and marketing, sometimes deriving experience from international trade. In other cases, small farmers coalesce in associations or cooperatives, sometimes with the aid of government, to deal directly with modern supermarkets. Some suppliers are expanding by contracting with more producers. Others are consolidating by dealing only with producers that can meet the demand for growing volume and high standards.

PT Saung Mirwan, established in 1983 near Bogor, Indonesia, is an example of a relatively large veg-

Specialized suppliers are overcoming procurement challenges in developing economies by helping modern supermarket chains to do business with small-scale producers and traditional market channels.

SUPERMARKET INNOVATIONS

The modernization of the retail food sector stems from technological and institutional innovations made over the last century. The innovations primarily have been information technology applications aimed at lowering costs and more efficiently tracking and managing product flows and inventories. Institutional innovations have led to increased consumer convenience through a broader selection of food and nonfood products and services, and to lower costs through economies of scale in procurement and distribution (Hagen 2002).

TECHNOLOGICAL

2005	Introduction of the 14-digit Global Trade Identification Number (GTIN), which provides a unique identification number for all globally traded items.
2005	Wal-Mart begins using Radio Frequency Identification (RFID) tags, which allow retailers to know exactly where products are in the delivery pipeline and to better forecast inventory needs. A tag can carry information about the origin and quality of ingredients, genetic information, location of the farm of origin, and marketing channels.
1993	Experiments with hand-held scanners in the Netherlands.
1990	Introduction of self-checkout system in the United States.
1985	Wal-Mart starts using electronic data interchange (EDI) with its suppliers.
1984	ScanLab, introduced in the United States, is the first computer software designed to help supermarkets organize scan data for marketing decisions.
1974	First product scanned at Marsh Supermarkets, Troy, Ohio, United States.
1972	Development of the 10-digit Universal Product Code in the United States.
1950s	Markets in the United States use glass-door, defrosting, freezer cases; automatic conveyor belts at checkout; adjustable shelving; automatic doors; and air conditioning.
1939	First precooked, frozen meals introduced by Birds Eye in the United States.
1937	Sylvan Goldman invents the shopping cart, Oklahoma City, United States.

INSTITUTIONAL

1995	U.S.-based Kroger Co. is first supermarket to take grocery orders for home delivery over the Internet.
1988	U.S.-based Wal-Mart enters the food retail business by opening its first supercenter.
1978	First generic private-label products appear on supermarket shelves in the United States.
1976	The first membership warehouse club, Price Club, opens in San Diego, California, United States.
1973	Giant Foods opens a warehouse and grocery distribution center in Jessup, Maryland, United States.
1973	Oshawa Group opens a hypermarket in Canada, the first in North America.
1963	The French company Carrefour invents the hypermarket concept, selling general merchandise and a full line of fresh and processed foods. It opens in Sainte-Geneviève-des-bois, with 2,500 square meters of floor area, 12 checkouts, and 400 parking spaces.
1962	Giant Food, Landover, Maryland, United States, introduces the first in-store pharmacy.
1946	A&P introduces the store-within-a-store concept by adding in-store bakery shops served by central bakeries.
1920s	In the United States, the first modern supermarket appears, a combination store with self-serve and emphasis on high volume and low price.

Sources: Carrefour website, Food Marketing Institute, Hagen 2002, and Kinsey 2004.

etable and flower farm that supplements its own production with supplies from 50 other producers, 40 of which are small-scale operations, with an average of less than a half hectare of cultivated area. It supplies 18 types of flowers and more than 40 varieties of fresh vegetables to supermarkets' central distribution centers. The company has grown rapidly, doubling its greenhouse capacity from 1.5 hectare in 1991 to 3 hectares by the early 2000s (Chowdhury et al. 2005).

Xincheng Foods supplies fresh vegetables to supermarket chains in the Shanghai area. It operates nine farms, producing vegetables, livestock, and fish, with 1,000 hectares of vegetables and 30 hectares of aquaculture. In 1997, it began supplying China's top three national supermarkets; by 2003, it was supplying 500 supermarkets owned by domestic and foreign chains. From 15 percent to 20 percent of what the company supplies comes from its own land and greenhouses, with 50 percent from 4,200 contract producers, and 30 percent from wholesale markets. The company also rents land to grow vegetables for export to Japan and Southeast Asia (Hu et al. 2004).

PT Bimandiri of Indonesia specializes in procurement and marketing of fresh produce, buying 30 percent from producer groups, and the remainder from traditional channels. Since 1998, *Bimandiri* has been a dedicated supplier to Carrefour, Indonesia, rapidly expanding its business from half a ton per day in 1998 to seven tons per day in 2003. In 2001, it contacted a group of 100 farmers about producing a small low-pesticide watermelon for Carrefour. Eventually, half the farmers were able to produce this special watermelon, earning twice the price per kilogram of a standard watermelon. Discussions are underway with *Bimandiri* to supply Carrefour's other Southeast Asia outlets (Reardon 2004a).

China's *San Lu Vegetable Co.*, once a government-owned production and procurement company, is now a private company investing in cold storage and modern processing facilities for the Beijing market. In 2001, the focus of the business shifted from exporting cabbage, carrots, and tomatoes to the Middle East to supplying domestic supermarkets. The number of participating farms expanded rapidly from 300 in 1999 to 4,500 in 2003. The company uses traditional wholesale markets to sell surplus product or to purchase product to fill supply gaps (Hu et al. 2004).

Malaysia's state-run *Federal Agricultural Marketing Authority* (FAMA) began supplying supermarkets and hypermarkets in 2000. It has contract arrangements with more than 1,350 producers of fruits and vegetables, livestock, fresh-water aquaculture, and coconuts. Farmers produce according to cropping schedules designed to ensure steady supply. FAMA's 44 collection centers supply seven distribution centers. Supermarkets also obtain supplies directly from farmers and wholesalers (Shamsudin and Selamat 2005; Shepherd 2005).

The Bukidnon Lettuce Cluster in northern Mindanao, the Philippines, consists of five farms that sell lettuce directly to fast-food companies and a cash-and-carry chain. They ship a total of 10 tons weekly. The largest of the farms coordinates the group's business activities and serves as a liaison with input suppliers, transporters and buyers. Surplus production or off-sizes are sold on the wholesale market (Shepherd 2005).

Meeting the Challenge of the Retail Food Revolution: The Policy Response

The growth of supermarkets is an important economic force in the region with potential benefits for society as a whole. This growth is contributing to food system modernization, lower food costs, and higher food quality and safety standards. Lower food prices help sustain economic development—consumers spend less on food and more on nonfood items, thus, providing a stimulus to other economic sectors. Enhanced food supply chains needed to support supermarkets also help overcome the logistical challenges of rapid urbanization.

One measure of the significance of this change is the reaction within various sectors of the food supply chain. Even in remote areas of the PECC region, farmers are already dealing with supply chain changes initiated by the modern food sector. Specialized suppliers are emerging to meet supermarkets' demands for large volumes of consistently high-quality product. These suppliers are transitional change agents, enhancing the best that traditional small-scale producers and markets now offer. At the same time, these suppliers are promoting upgrades to these operations through adoption of better and safer production and marketing practices, and application of modern technologies. Many of these changes are occurring without direct government aid.

Recognizing the significance of private industry initiatives will help public policy makers respond with tools that enhance rather than hinder supermarket development. Governments have resources and policy options that can ease the transition to modern food retailing for the traditional sector.

The shift to modern food retailing has no singular path. Some markets combine larger-scale retailing, such as hypermarkets selling food and nonfood items, with small-scale neighborhood shops. The corporate focus ranges from large multinational chain management to companies that focus more narrowly on one-market segments within an economy. Differences in food retailing may provide seeds of future change. For example, the proliferation of convenience stores in the cities of East Asia may influence urban marketing in other developing economies of the region.

Policy makers can have a direct role in modernization of the retail food sector through investments to upgrade and expand infrastructure, liberalization of policies concerning foreign investments, and trade reforms.

Government investment in expanding and upgrading transportation infrastructure improves access to distant locales or food surplus areas and enhances the flow of urban commerce, including food distribution systems. All sectors of a nation's economy benefit from transportation infrastructure improvements.

The reduction or elimination of investment barriers creates opportunities for foreign investment in retail food outlets. Foreign investment can be used both to modernize existing retail outlets and build new outlets and the supply chains to support them.

Lowering trade barriers can create opportunities for food retailers and processors to more freely acquire food products with desired characteristics from sources offering those products at the lowest price. This opens new markets to producers able to meet market demands and keeps consumer food costs low.

Policy makers can also help the millions of small- and medium-sized participants in the food supply chain adapt to the new food system environment. In almost all developing economies, the rural sector has a big stake in supplying food to the cities through traditional markets. As food retailing modernizes, policymakers must consider whether government interventions to assist farmers and traditional merchants can benefit society. To support farmers, policy makers may consider:

- Providing extension services to help farmers be more responsive to supermarket demands.
- Improving producer access to credit to ease the shift away from cash payments, common in the traditional sector.
- Encouraging farmers to form associations to deal more competitively with supermarkets or wholesalers.
- Promoting farmer-supermarket linkages, such as Malaysia's FAMA.
- Providing, as does Mexico, technical assistance to enhance small producers' organizational, management and financial capacity to deal directly with domestic supermarkets and foreign buyers.

To support traditional markets, policy makers can:

- Help traditional retail shops and wet markets upgrade their facilities and food safety practices. For example, as Hong Kong has established blocks where traditional retailers can have covered market stalls with utilities.
- Provide laboratories to test for food-borne pathogens.
- Set up government-sponsored distribution centers for small retailers, as has been done in Thailand.
- Control supermarket growth by putting population and distance restrictions on where supermarkets can locate relative to traditional retail food outlets, like those in effect in Indonesia and Thailand.

Public policy interventions must be predicated on solid information. Before policies can be crafted, policy makers will need more country-specific information and analysis to better understand the impact of increasing supermarket concentration on traditional market outlets, consumers, farmers, processors and other market participants. This will provide the basis for policies that serve the needs of all market participants.

The growth of supermarkets—largely the result of private industry and consumer actions—presents significant economic opportunities and policy challenges for private and public decision makers in the region. Stopping this transformation would be difficult if not impossible. Rather, policy makers must assess resources and policy options that can enhance the transition to modern food retailing for the traditional sector.

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PECC MEMBERS

PACIFIC ECONOMIC COOPERATION COUNCIL

Pacific Economic Cooperation Council International Secretariat
4 Nassim Road
Singapore 258372
Tel: 65-6737 9822
Fax: 65-6737 9824
http://www.pecc.org

AUSTRALIA

Australian Pacific Economic Cooperation Committee (AUSPECC)
JG Crawford Building
Australian National University
Canberra ACT 0200
Australia
Tel: 61-2-6125 0567
Fax: 61-2-6125 0169
http://sunsite.anu.edu.au/auspecc/aust.html

BRUNEI DARUSSALAM

Brunei Darussalam National Committee for Pacific Economic Cooperation (BDCPEC)
Department of Multilateral Economics
Ministry of Foreign Affairs
Bandar Seri Begawan BD 2710
Brunei Darussalam
Tel: 673-2-261 177
Fax: 673-2-261 620

CANADA

Canadian National Committee for Pacific Economic Cooperation (CANCPEC)
Asia Pacific Foundation of Canada
666-999 Canada Place
Vancouver, BC, V6C 3E1
Canada
Tel: 1-604-684-5986
Fax: 1-604-681-1370
http://www.asiapacific.ca/

CHILE

Chilean National Committee for Pacific Economic Cooperation (CHILPEC)
Chile Pacific Foundation
Av. Los Leones 382, Of. 701
Providencia
Santiago, Chile
Tel: 56-2-334 3200
Fax: 56-2-334 3201
http://www.funpacifico.cl/ingles/index.html

CHINA

China National Committee for Pacific Economic Cooperation (CNCPEC)
China Institute of International Studies
3 Toutiao Taijichang
Beijing
China 100005
Tel: 86-10-8511 9648
Fax: 86-10-8511 9647
http://www.pecc.net.cn/

COLOMBIA

Colombia National Committee for Pacific Economic Cooperation (COLPECC)
Ministry of Foreign Affairs
Calle 10 No. 5-51
Santafe de Bogota
Colombia
Tel: 57-1-5667 140
Fax: 57-1-5667 145

ECUADOR

Ecuadorian Committee for the Pacific Economic Cooperation Council (ECPECC)
Av. Carrión & Páez Str. (corner), ZURITA Bldg, Mezzanine
Ministry of Foreign Affairs,
Quito, Pichincha,
Ecuador, South America
Tel: 593-2-2501-197/2561-215 (ext. 253)
Fax: 593-2-2508987

HONG KONG, CHINA

Hong Kong Committee for Pacific Economic Cooperation (HKCPEC)
Trade & Industry Department
17/F, Trade & Industry Department Tower
700 Nathan Road
Kowloon
Hong Kong, China
Tel: 852-2398-5305
Fax: 852-2787-7799
http://www.hkcpec.org/

INDONESIA

Indonesia National Committee for Pacific Economic Cooperation (INCPEC)
Centre for Strategic and International Studies (CSIS)
Jalan Tanah Abang III/23-27
Jakarta 10160
Indonesia
Fax: 62-21-386 5532
Tel: 62-21-384 7517

JAPAN

Japan National Committee for Pacific Economic Cooperation (JANCPEC)
The Japan Institute of International Affairs (JIIA)
11F Kasumigaseki Building
3-2-5 Kasumigaseki, Chiyodaku
Tokyo 100
Japan
Tel: 81-3-3503 7744
Fax: 81-3-3503 6707
http://www.jiia.or.jp/

KOREA

Korea National Committee for Pacific Economic Cooperation (KOPEC)
Korea Institute for International Economic Policy (KIEP)
300-4, Yeorngok-Dong, Seocho-Gu
Seoul 137-747
Korea
Tel: 82-2-3460 1242
Fax: 82-3-3460 1244

MALAYSIA

Malaysia National Committee for Pacific Economic Cooperation (MANCPEC)
Institute of Strategic and International Studies (ISIS)
No. 1 Pesiaran Sultan Salahuddin
P.O. Box 12424 50778
Kuala Lumpur, Malaysia
Tel: 60-3-2693 9366
Fax: 60-3-2693 9430

MEXICO

Mexico National Committee for Pacific Economic Cooperation (MXCPEC)
Paseo de la Reforma No. 175
Piso 10, Col. Cuauhtemoc
06500 Mexico, DF
Tel: 52-55- 5327 3001
Fax: 52-55- 5327 3134

NEW ZEALAND

New Zealand National Committee for Pacific Economic Cooperation (NZPECC)
8th floor, Rutherford House,
23 Lambton Quaym Wellington
New Zealand

PERU

Peruvian National Committee for Pacific Economic Cooperation (PERUPEC)
Ministry of Foreign Affairs
Jr. Lampa 545, 4th Floor
Lima, Peru
Tel: 51-1-311 2570
Fax: 51-1-311 2564

THE PHILIPPINES

Philippine Pacific Economic Cooperation Committee (PPECC)

PACIFIC ISLANDS FORUM (PIF)

Pacific Islands Forum Secretariat
Private Mail Bag
Suva, Fiji
Tel: 679-3312600/ 3302375 (Direct)
Fax: 679-3300102

RUSSIA

Russia National Committee for Pacific Economic Cooperation (RNCPEC)
19 Novy Arbat St., Office 2035
103025 Moscow, Russia
Tel: 7-095- 244 9033

SINGAPORE

Singapore National Committee for Pacific Economic Cooperation (SINCPEC)
c/o School of Accountancy
Singapore Management University
60 Stamford Road, #05-41
Singapore 178900
Tel: 65-6828150
Fax: 65-68280600

CHINESE TAIPEI

Chinese Taipei Pacific Economic Cooperation Committee (CTPECC)
Taiwan Institute of Economic Research (TIER)
5F, 16-8, Tehwei Street
Taipei
Chinese Taipei
Tel: 886-2-2586 5000
Fax: 886-2-2594 6528
http://www.tier.org.tw/pecc/ctpecc/index.htm

THAILAND

Thailand National Committee for Pacific Economic Cooperation (TNCPEC)
Department of Economic Affairs
Ministry of Foreign Affairs
Sri Ayudhya Road
Bangkok 10400
Thailand
Tel: 662-643-5248
Fax: 662-643-5247

UNITED STATES

United States National Committee for Pacific Economic Cooperation (USNCPEC)
1819 L Street, Second Floor
Washington, DC 20036
USA
Tel: 1-202-293-3995
Fax: 1-202-293-1402
http://www.pecc.org

VIETNAM

Department of Multilateral Economic Cooperation
Ministry of Foreign Affairs
#8 Khuc Hao Street
Ha Noi, Viet Nam
Tel: 84-4-199 3700
Fax: 84-4-199 3618

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http://www.pecc.net.cn/

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CNCPEC promotes economic development and cooperation by engaging in joint research with other member economies; by organizing and coordinating China's participation in various PECC task forces and other activities; by promoting multilateral and bilateral exchanges with other PECC members; and by hosting international conferences, meetings and seminars.

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Founded in 1980, PECC now comprises member committees from the economies of Australia; Brunei; Canada; Chile; China; Colombia; Ecuador; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Pacific Islands Forum Secretariat, Peru; the Philippines; Russia; Singapore; Chinese Taipei; Thailand; the United States; and Vietnam as well as the Pacific Island Nations. France (Pacific Territories) and Mongolia were admitted as associate members in April 1997 and April 2000, respectively. The Pacific Basin Economic Council (PBEC) and Pacific Trade and Development Conference (PAFTAD) are institutional members of PECC.

PECC's governing body is the Standing Committee, which meets once a year and consists of the chairs of PECC committees in each member economy. The day-to-day administrative and coordinating functions are carried out by an International Secretariat based in Singapore. Each member committee sends a high-level tripartite delegation from government, business, and academia to the PECC General Meeting held annually.

In addition, PECC establishes task forces, projects and networks to concentrate on particular policy areas. These groups meet periodically, organize seminars and workshops, conduct studies, and publish their conclusions and recommendations for the benefit of the Pacific community. PECC supports networks and projects on food, minerals, energy, telecommunications, air transport and transportation and publishes annual editions of *Pacific Economic Outlook* and *Pacific Food System Outlook.*

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For more information, contact the PECC International Secretariat, 4 Nassim Road, Singapore 258372, Tel: 65-6737 9823, Fax: 65-6737 9824, email: info@pecc.org

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