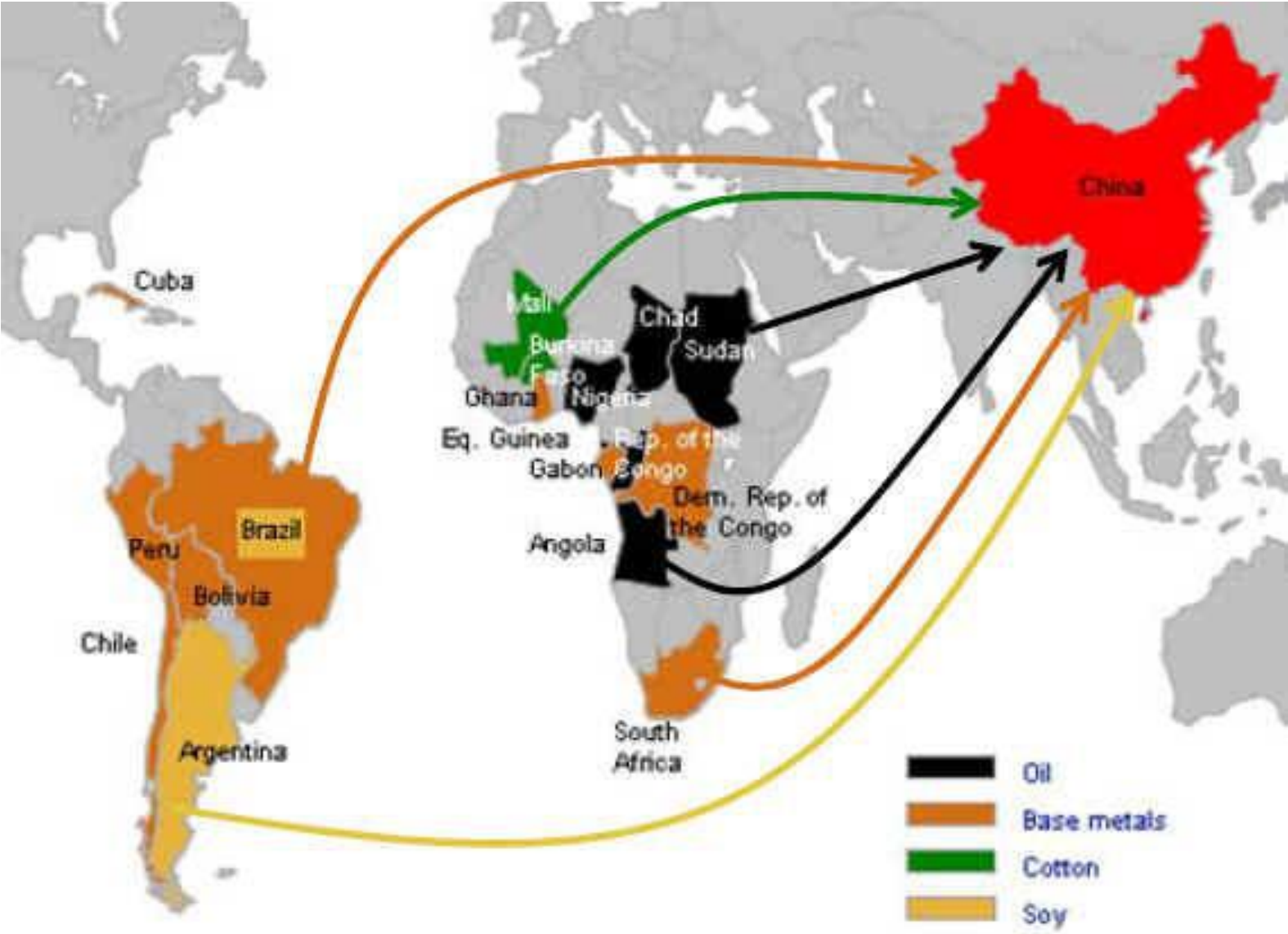


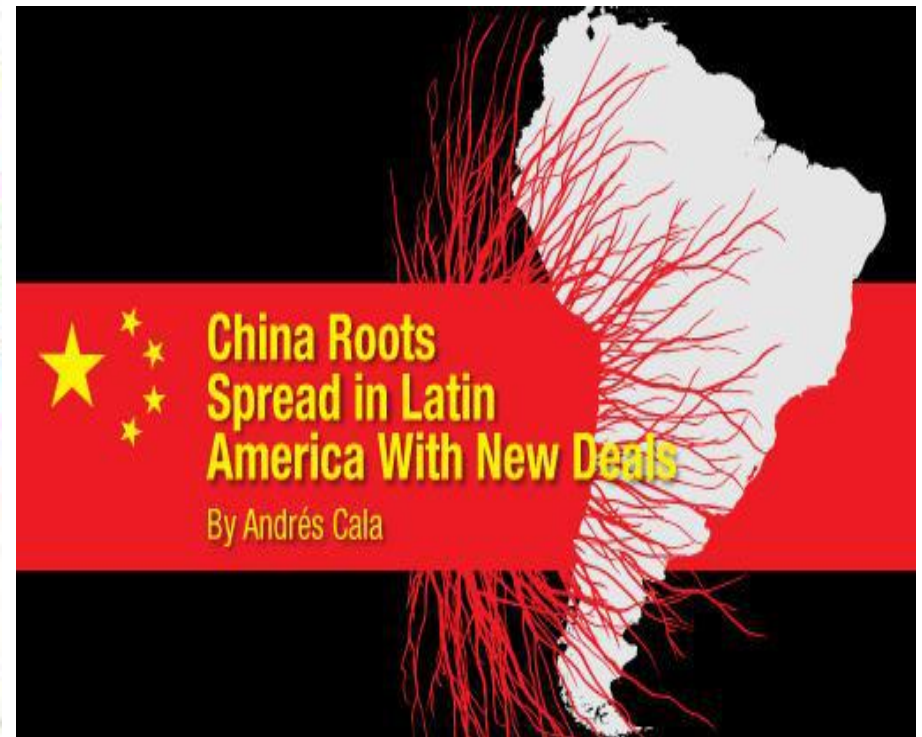
# ***Sino-Latin American Energy Relationship: Beyond Oil Possible?***

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*Instituto de Investigación Económica, UNAM  
Instituto de Estudios de América Latina  
Academia China de Ciencias Sociales*

**May 28, UNAM**

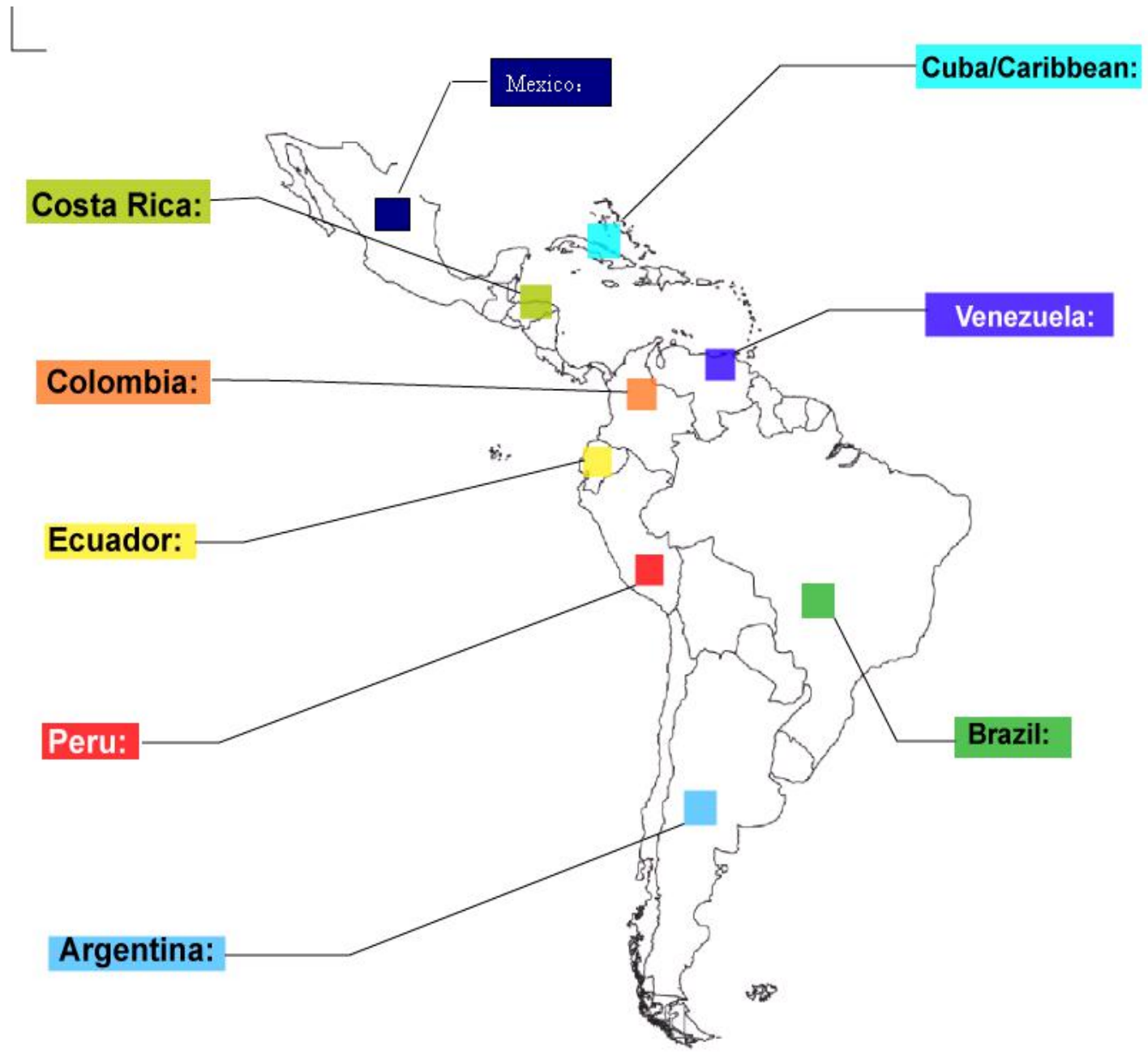




# China Roots Spread in Latin America With New Deals

By Andrés Cala

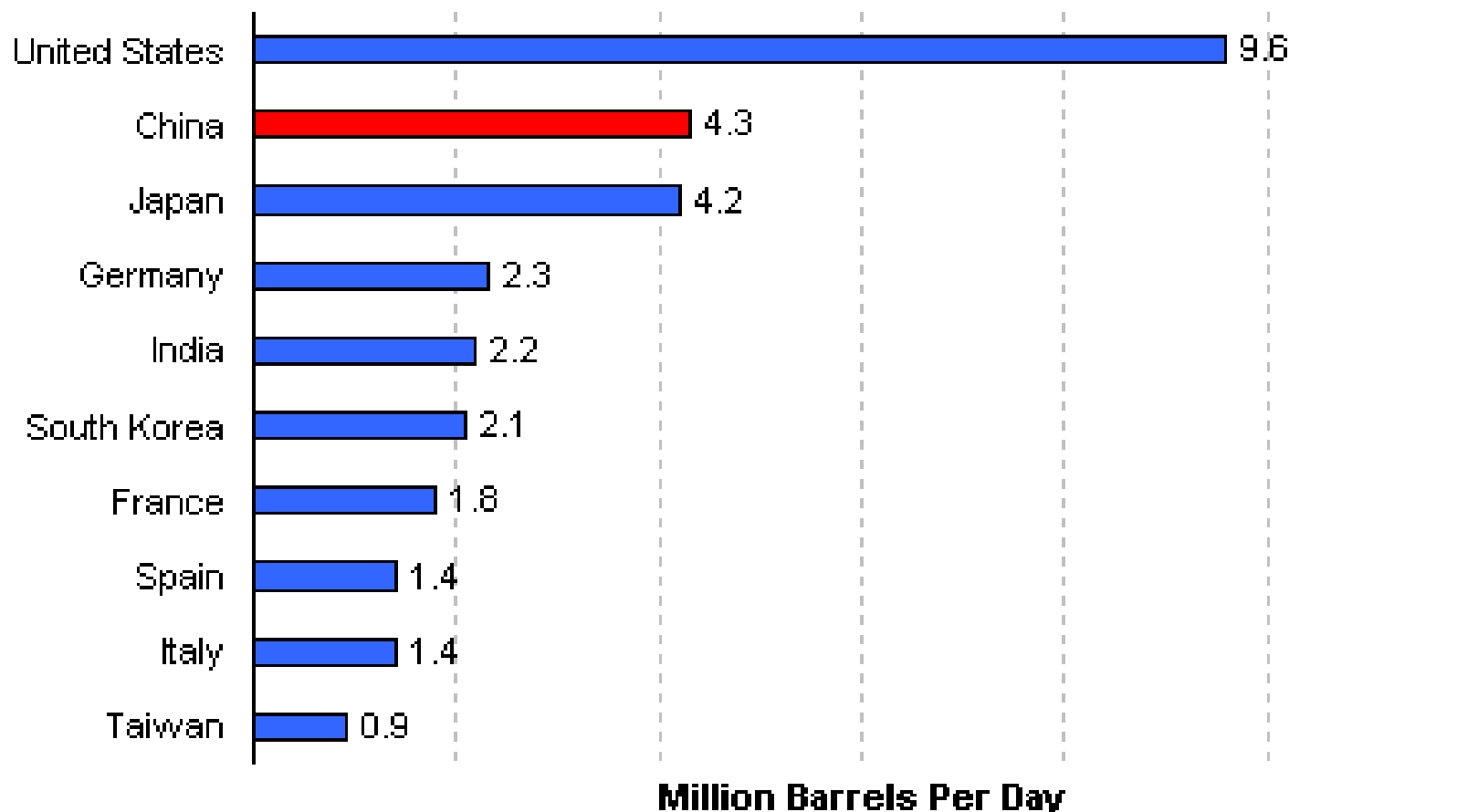




# Cooperation Models

- Technical Service Model
- Crude Oil Trade Model
- Joint Development Model
- Infrastructure Building Participation Model
- Loans for Oil Model
- Energy Technology Joint Research Model

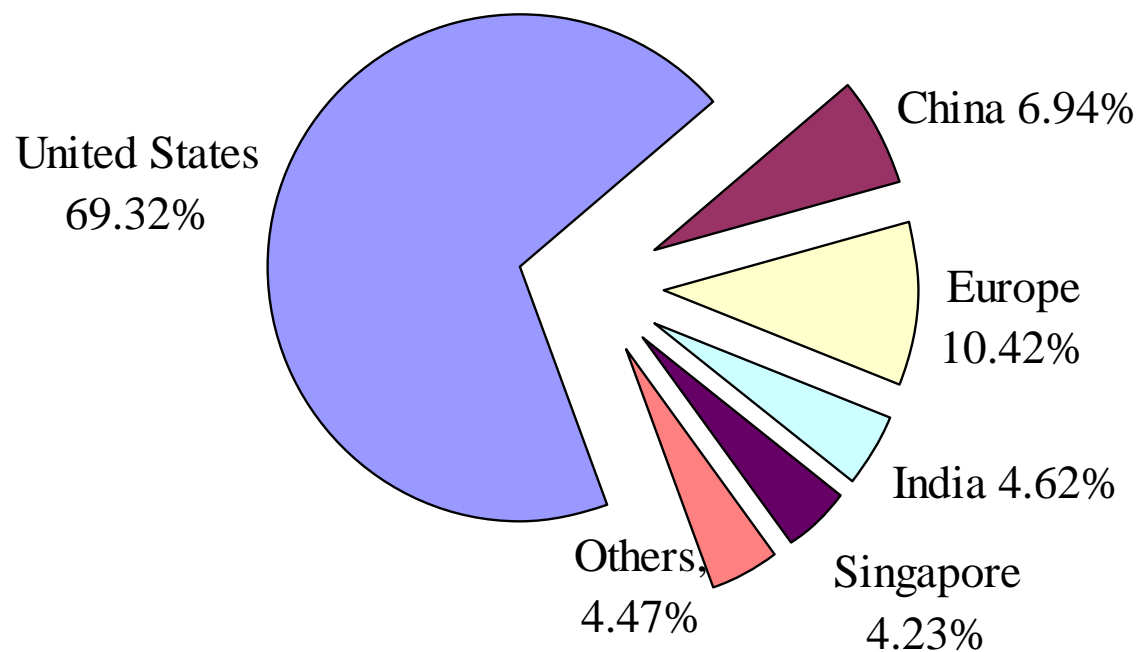
## Top Ten Net Oil Importers, 2009\*



Source: EIA Short-Term Energy Outlook (September 2010)

\*Estimates of production and consumption. Does not include stockbuild.

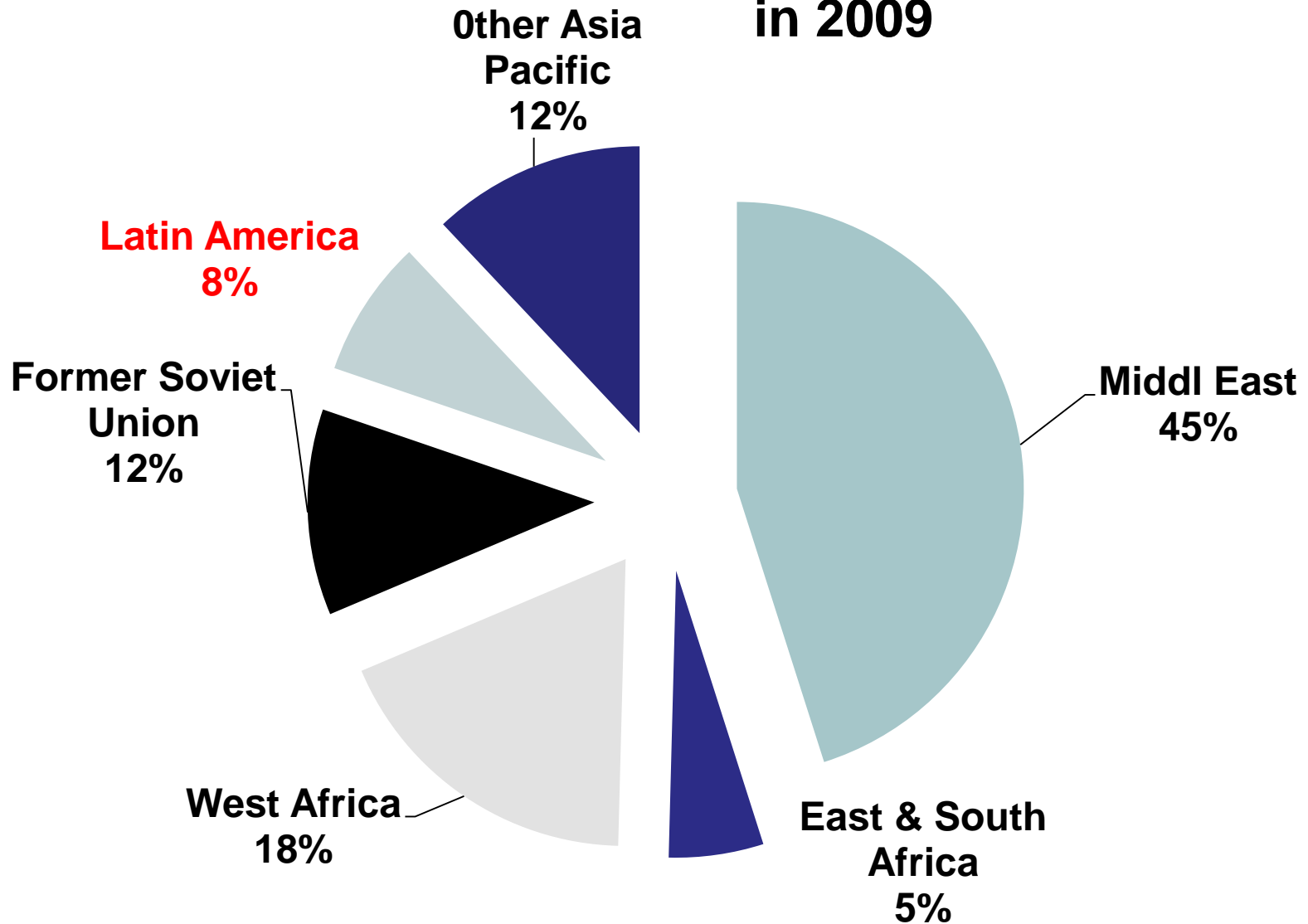
## Latin American Crude Oil Export Destination in 2009



**Source:** BP Statistical Review of World Energy, June 2010

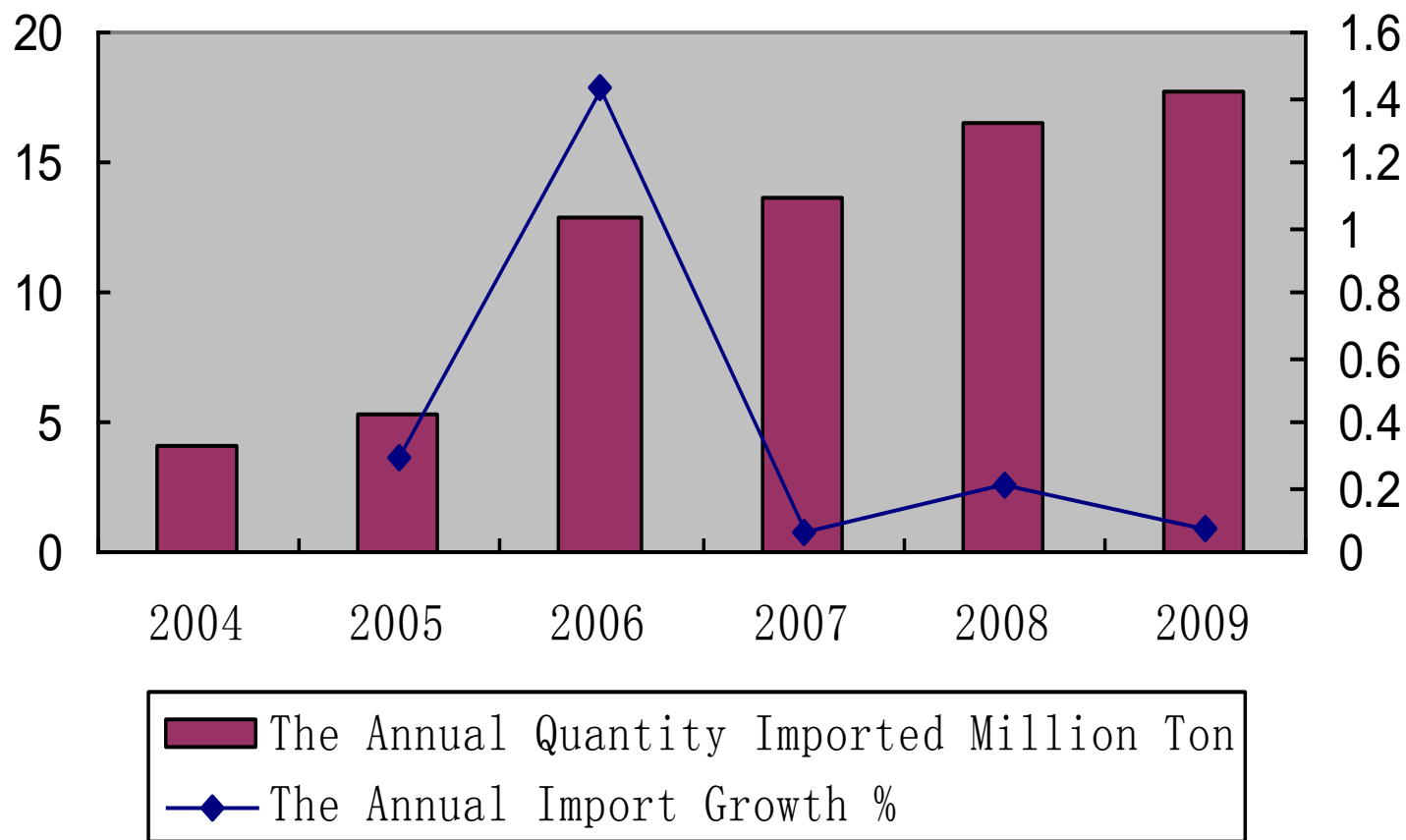


# China's crude oil import by regional origin in 2009



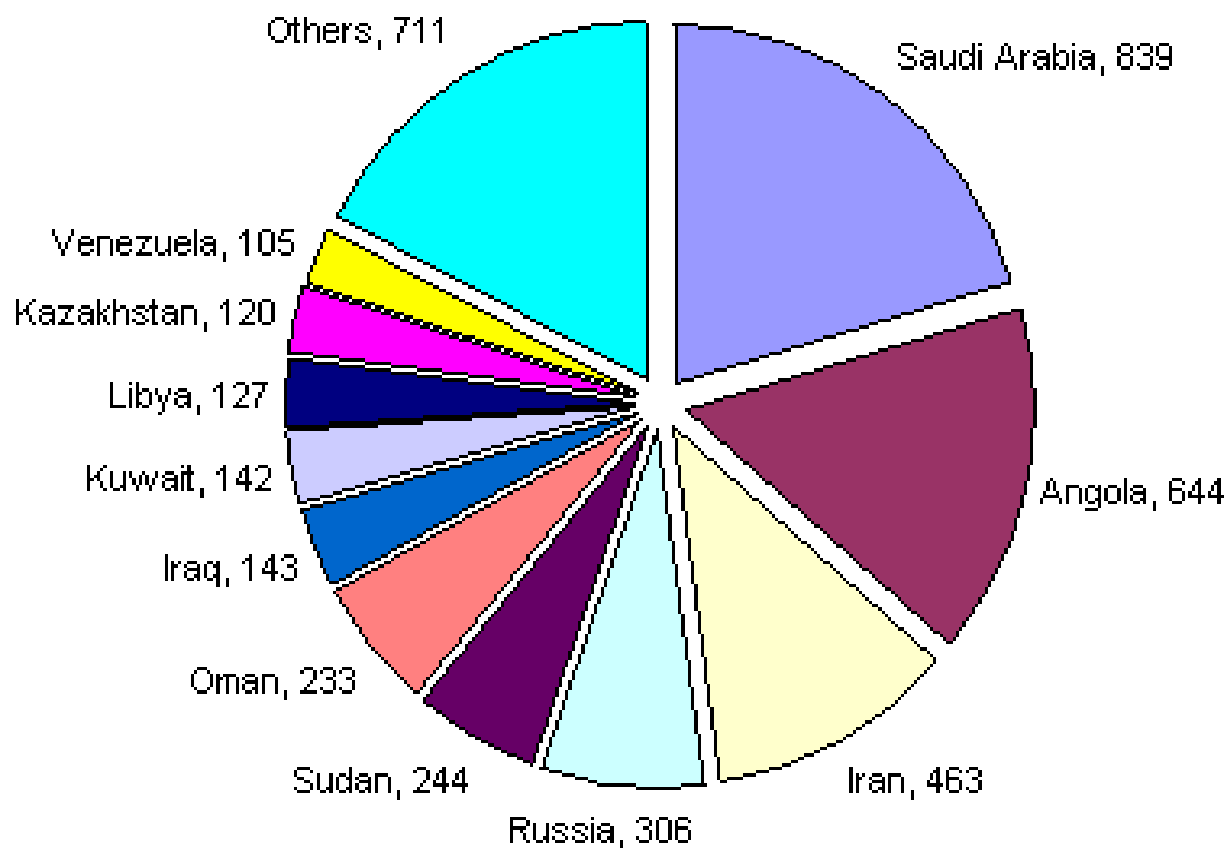
**Source:** BP Statistical Review of World Energy, June 2010

## China's Crude Oil Import from Latin America



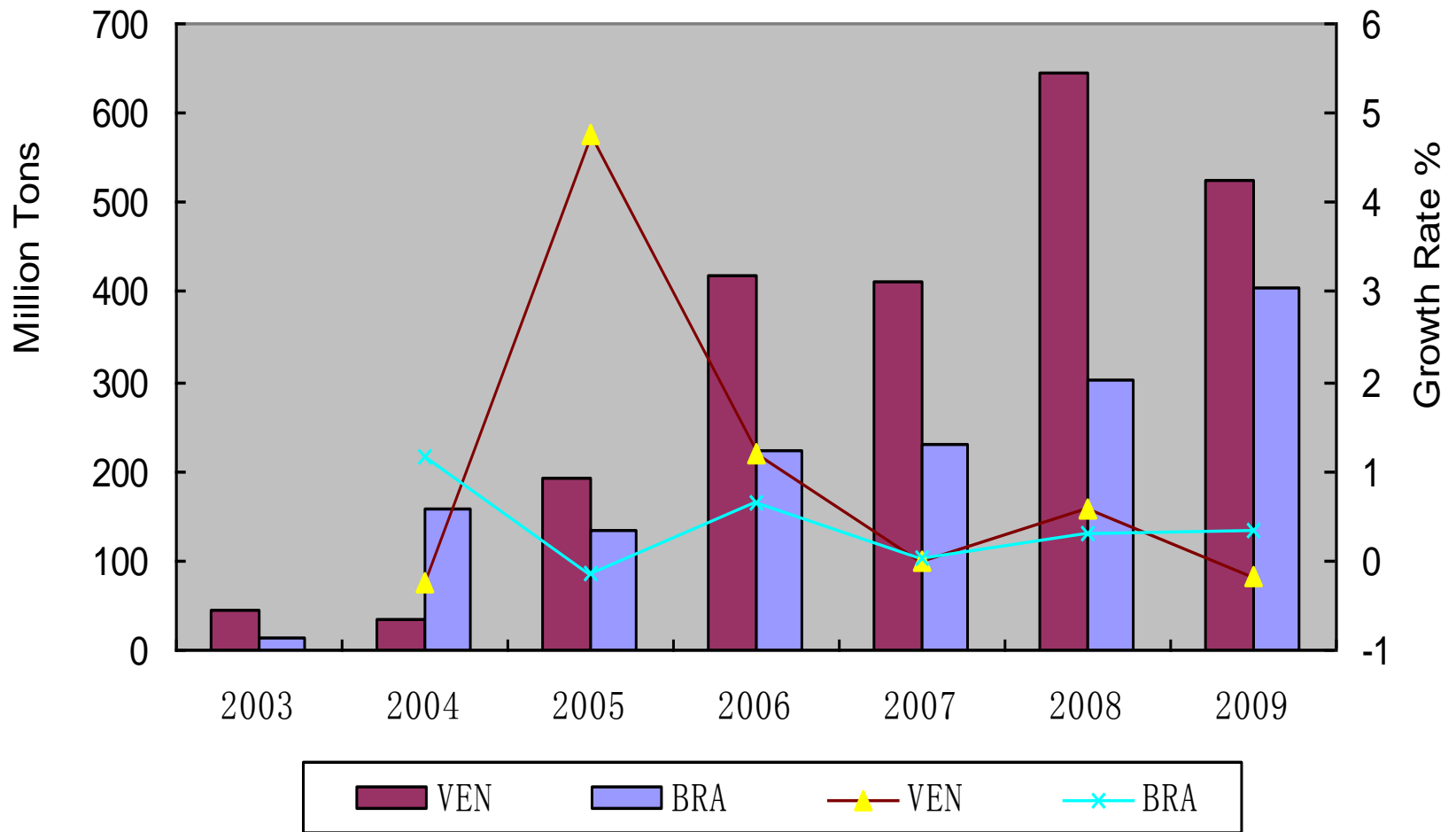
**Source:** BP Statistical Review of World Energy from 2005 to 2010.

### China's Crude Oil Imports by Source, 2009 (\*000 barrels per day)

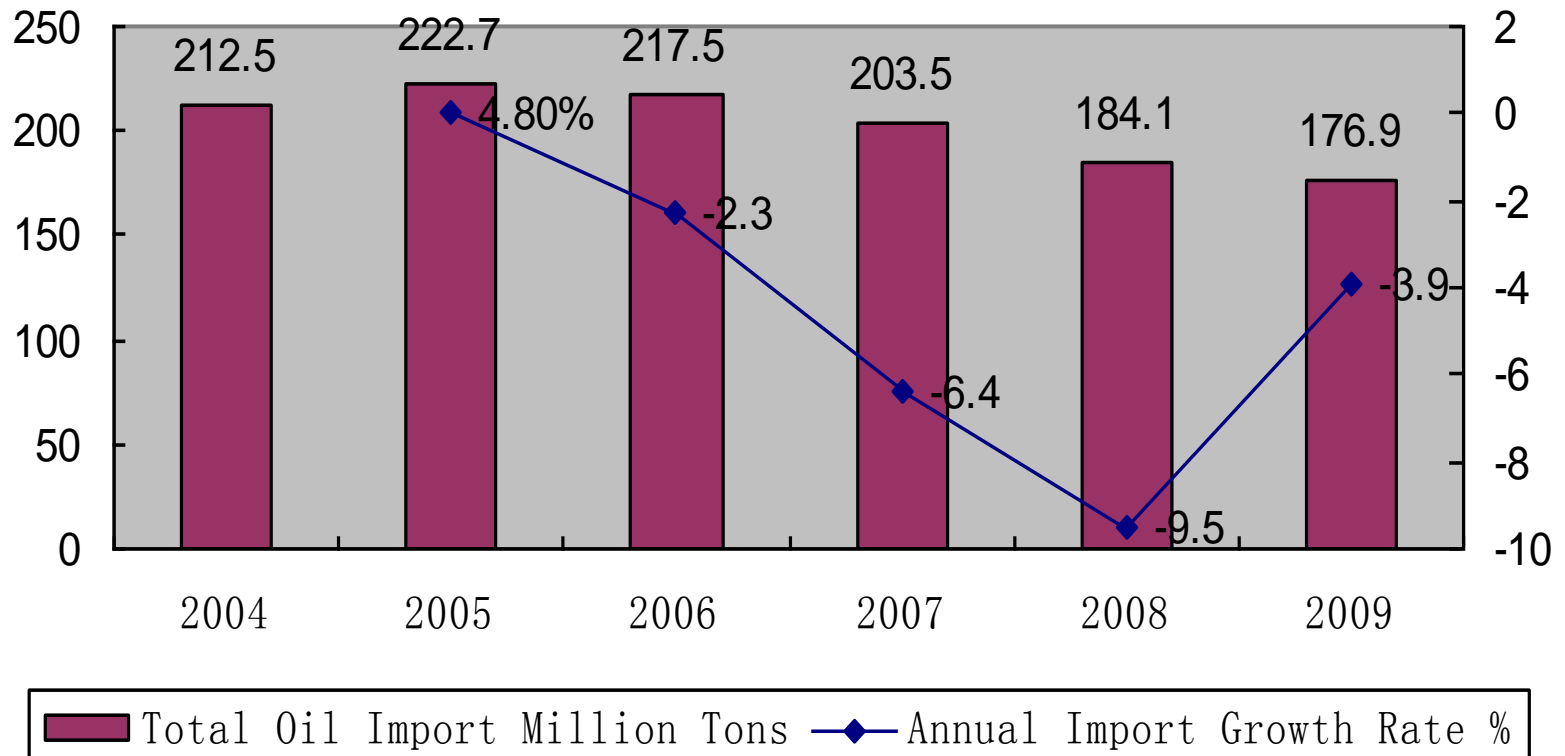


Source: FACTS Global Energy

# China's Crude Oil Import From Venezuela and Brazil

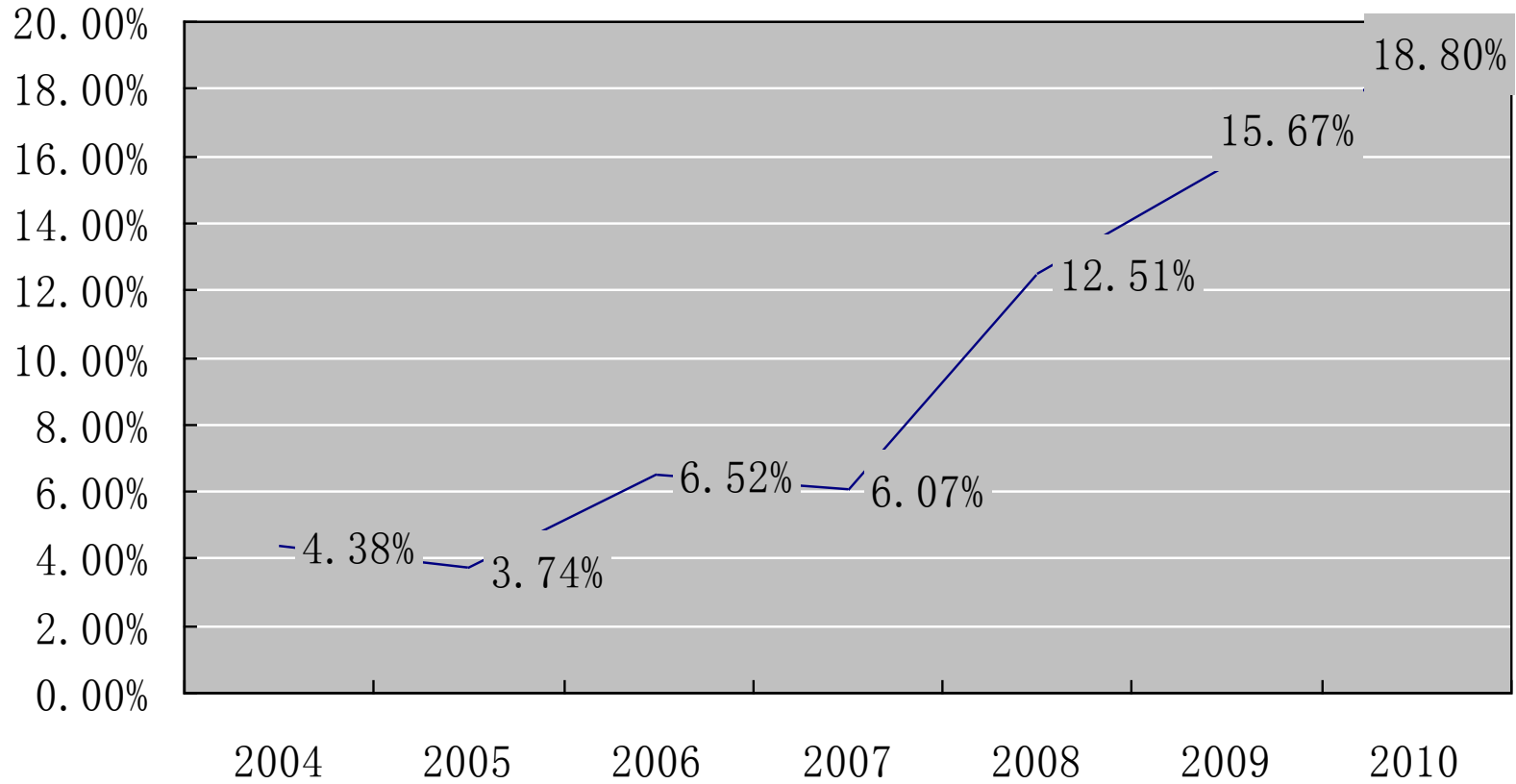


## U.S Annual Oil Import From Latin America



**Source:** BP Statistical Review of World Energy from 2005 to 2010.

**Figure 1: LAC Crude Oil Export to Asia in Its Total Export**



**Source:** BP Statistical Review of World Energy from 2005 to 2010

# Program Paradigm by Country

	Exploration	Development	Service Contract	Loans for oil
Peru	★	★	★	
Venezuela	★	★	★	★
Ecuador	★	★	★	★
Columbia		★	★	
Brazil	★		★	★
Mexico			★	
Argentina	★	★		

## Contract Types in Various Countries

<b>Contract</b>	<b>Company</b>	<b>Government</b>	<b>Countries</b>
<b>Concession</b>	<b>All risks and high reward</b>	<b>Reward is function of production and price</b>	<b>Argentina</b> <b>Brazil</b> <b>Peru</b>
<b>Production Sharing</b>	<b>Exploration risk and part of production risk</b>	<b>No risk and part of production</b>	<b>Bolivia</b> <b>Ecuador?</b> <b>Venezuela</b> <b>Colombia</b> <b>Brazil?</b>
<b>Service Contract</b>	<b>No risk</b>	<b>All risks</b>	<b>Mexico</b>
<b>Joint Venture</b>	<b>Participation in the risks and in the production</b>	<b>Participation in the risks and in the production</b>	<b>Venezuela</b>



- China regards Latin America as a strategic alternative to diversify China's oil import for maximizing her energy security, and national oil companies can act as agents to realize this target at lowest cost through corporative operations in Latin America.
- National oil companies mainly pursue their commercial profit in the market environment with certain both political and economic constraints imposed by governments.
- It is not easy to fully explain the policy-making process and clearly describe the whole set of policies, because of the close interactions between the governments and corporations like a puzzle in the black box.

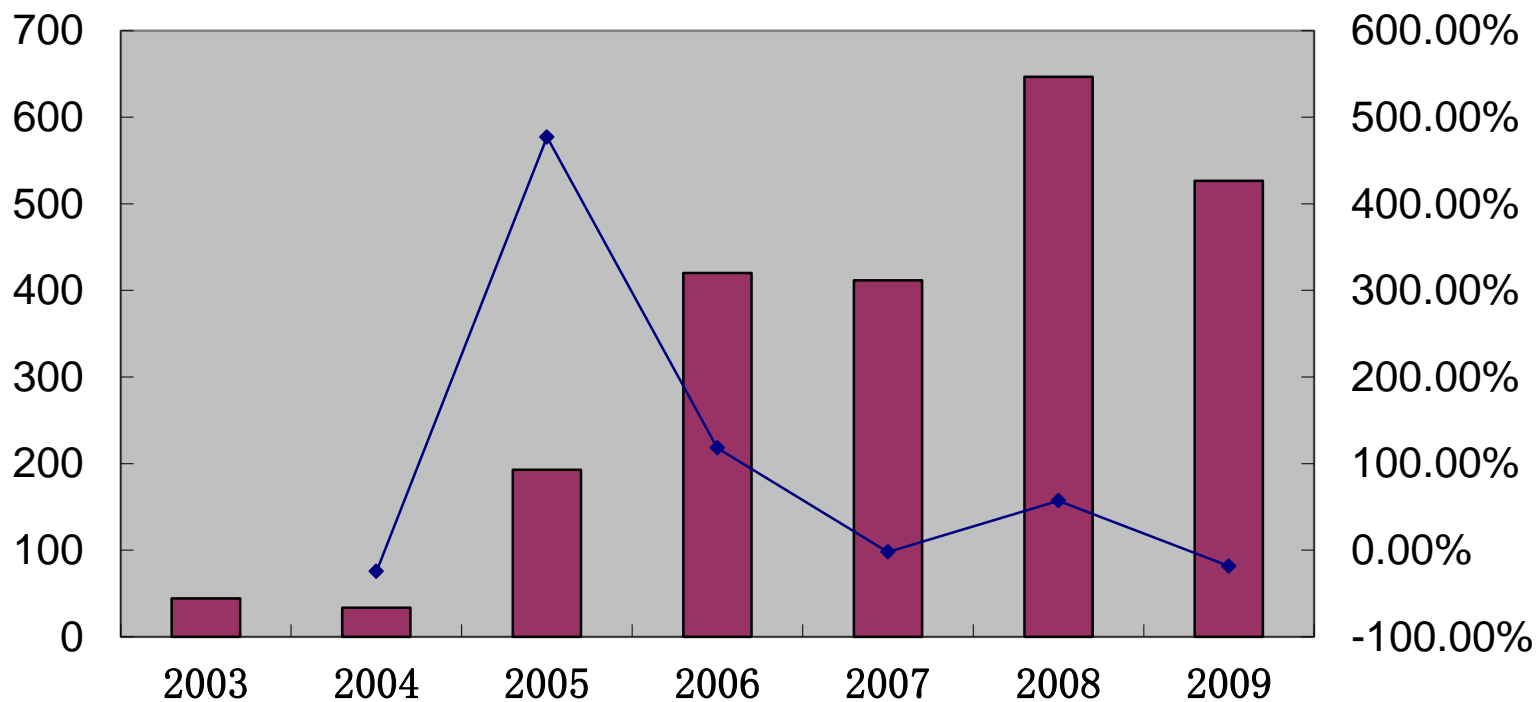
## Case Study : Sino-Venezuelan Model

- Sino-Venezuelan energy collaboration stands out as a relatively mature model.
- *Sino-Venezuelan Cooperation Model is a plural collaboration pattern with energy as cooperation axis and extended to infrastructure, high-tech, agriculture and other fields under the inter-governmental institutionalized cooperative framework, which are financed by Chinese banks or oil companies in form of credit or investment, and Chinese participatory companies in this model will be repaid by Venezuelan crude oil.*

# Sino-Venezuelan Exchanges of High Level Visits

Time	From Venezuela to China	Time	From China to Venezuela
1974	President of Nation Assempley	1985	Premier Zhao Ziyang
1981	Venezuela President	1996	Premier Li Peng
1996	President of Nation Assempley	1998	Vice Premier Wu bangguo
1999	President Hugo Chavez	2001	President of CPPCC Li Ruihuan
2001	President Hugo Chavez	2005	Vice President Zeng Qinghong
2004	President Hugo Chavez	2007	Member of the Standing Committee of CPC Li Changchun
2006	President Hugo Chavez	2008	Vice Premier Hui Liangyu
2008	President Hugo Chavez	2009	Vice President Xi Jinping
2009	President Hugo Chavez	2010	President Hu Jintao (postponed because of domestic earthquake )

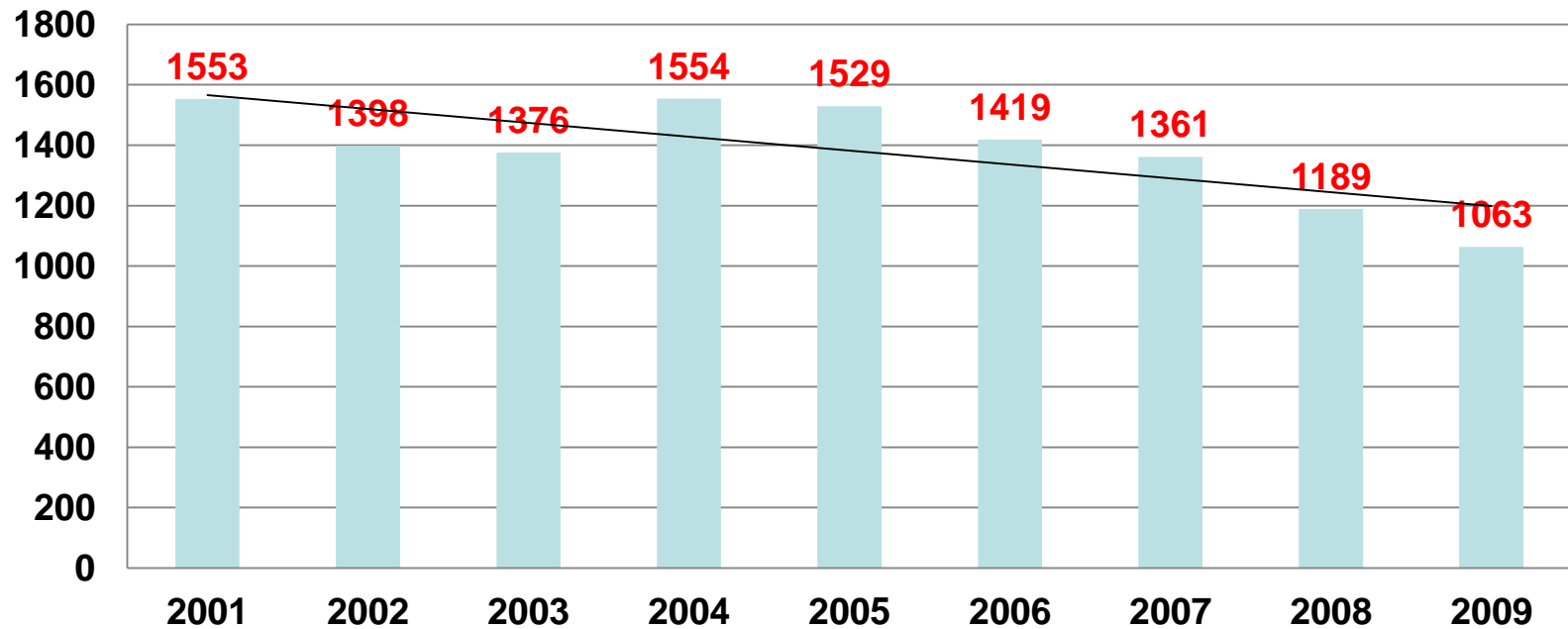
## China's Crude Oil Import From Venezuela



Oil Import Quantity, 10,000 tons

Annual Import Growth Rate %

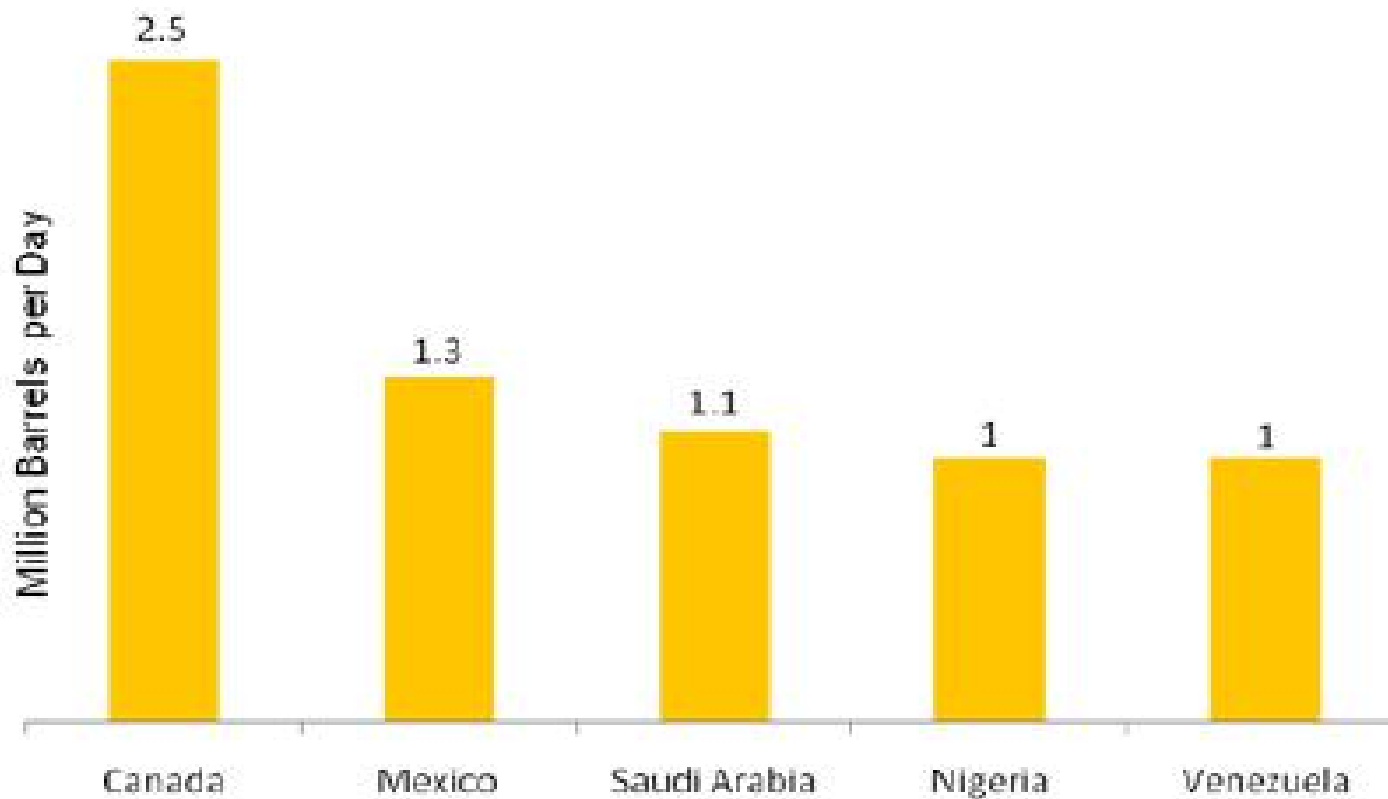
## U.S Crude oil import from Venezuela thousand barrels per day



Source : U.S. Energy Information Administration

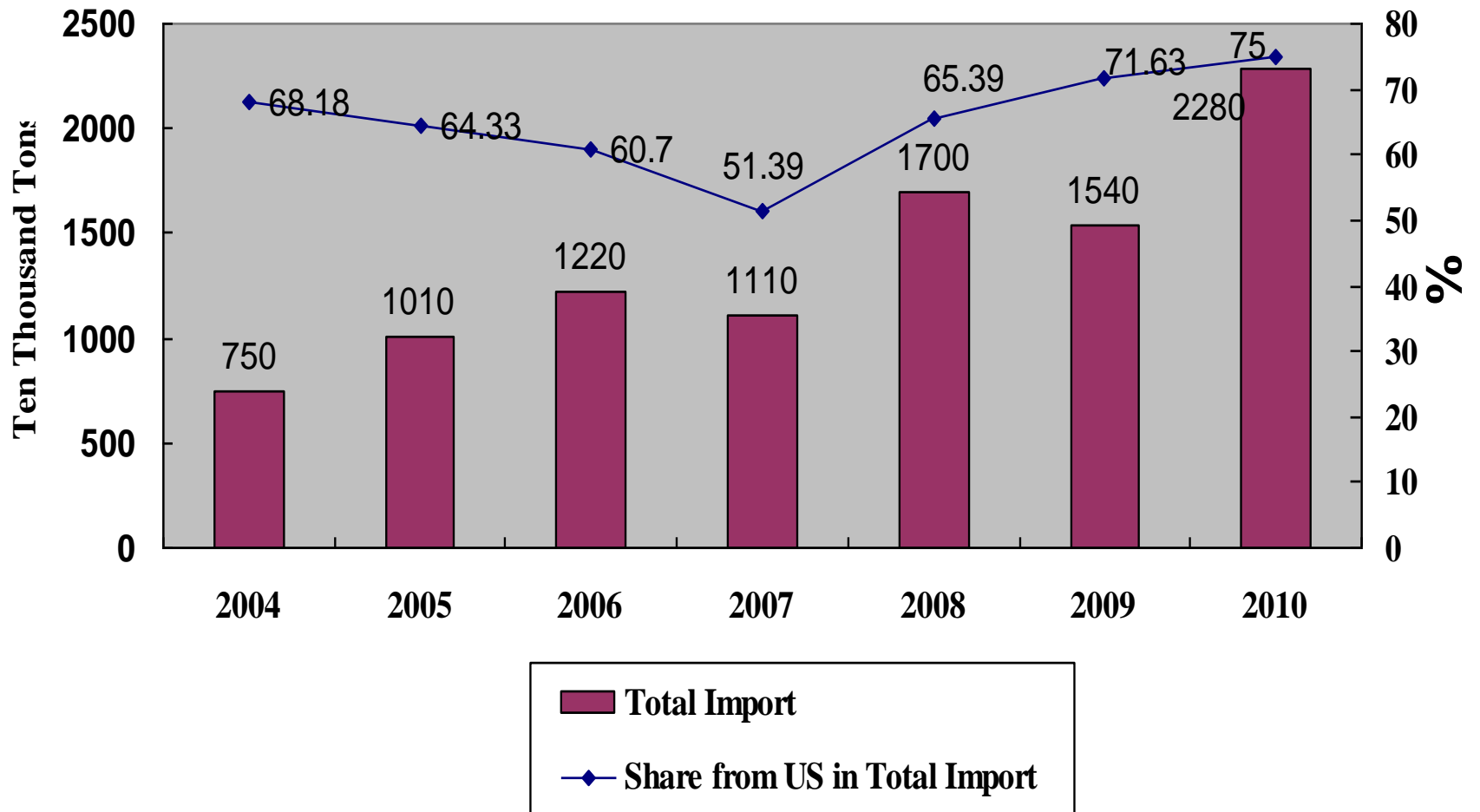
- Oil companies are to maximize their profits by adopting different commercial operation patterns in resource countries.
- To what extent of China's energy security ensured from Latin America could be measured by the crude oil volume imported from the region, which supplies until now only a marginal oil part for China.
- Sino-Venezuelan Cooperation Model is a special case in China's energy collaboration landscape with Latin America. This model architecture has evolved to have its own characteristics with a policy-making center, an open participatory pivot and a financing pool. In essence, its innovative design lies in multiple contractual arrangements.

### Top 5 Sources of U.S. Petroleum Imports, 2010



Source: U.S. Energy Information Administration

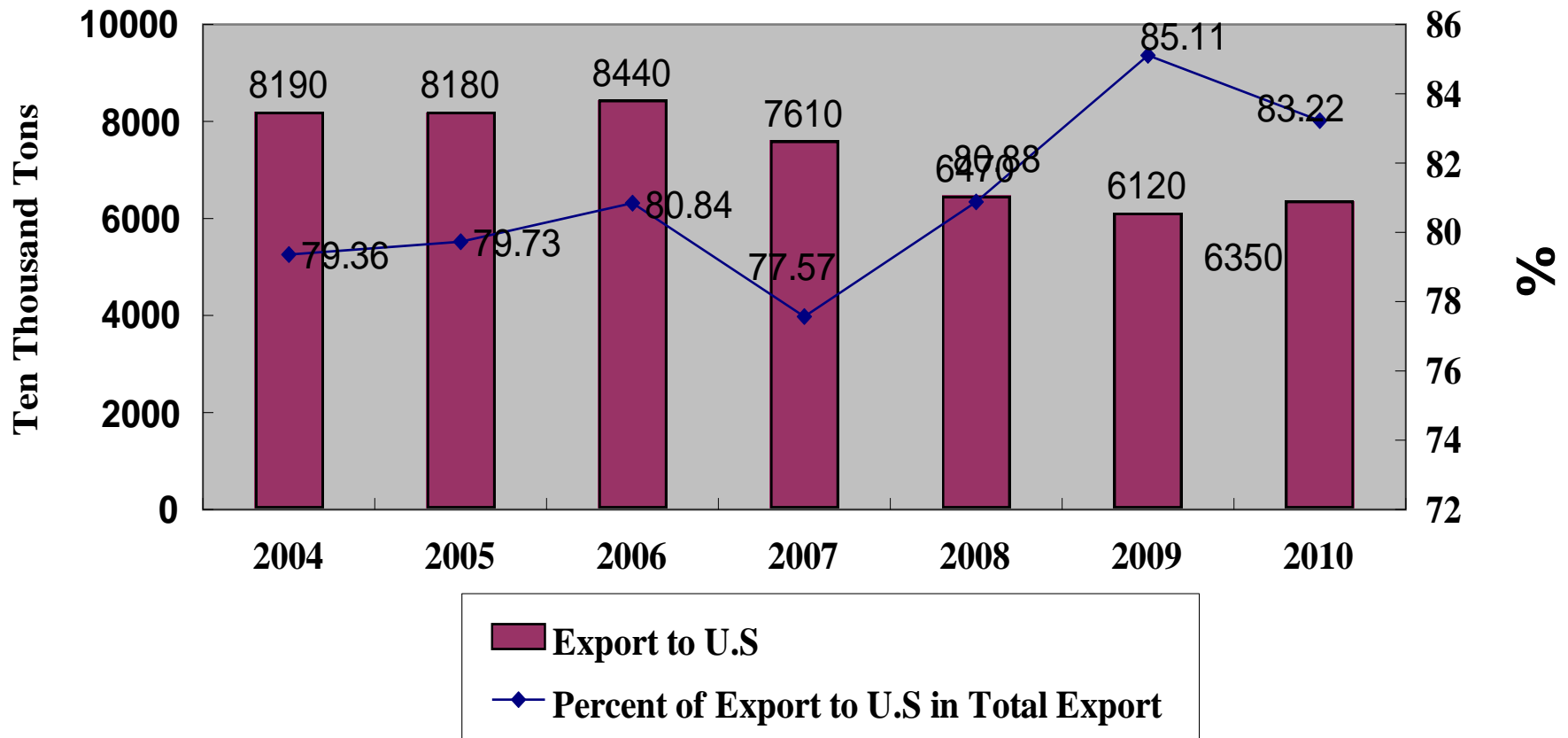
## Mexico's Oil Import from U.S



Source: BP Statistical Review of World Energy from 2005 to 2011.

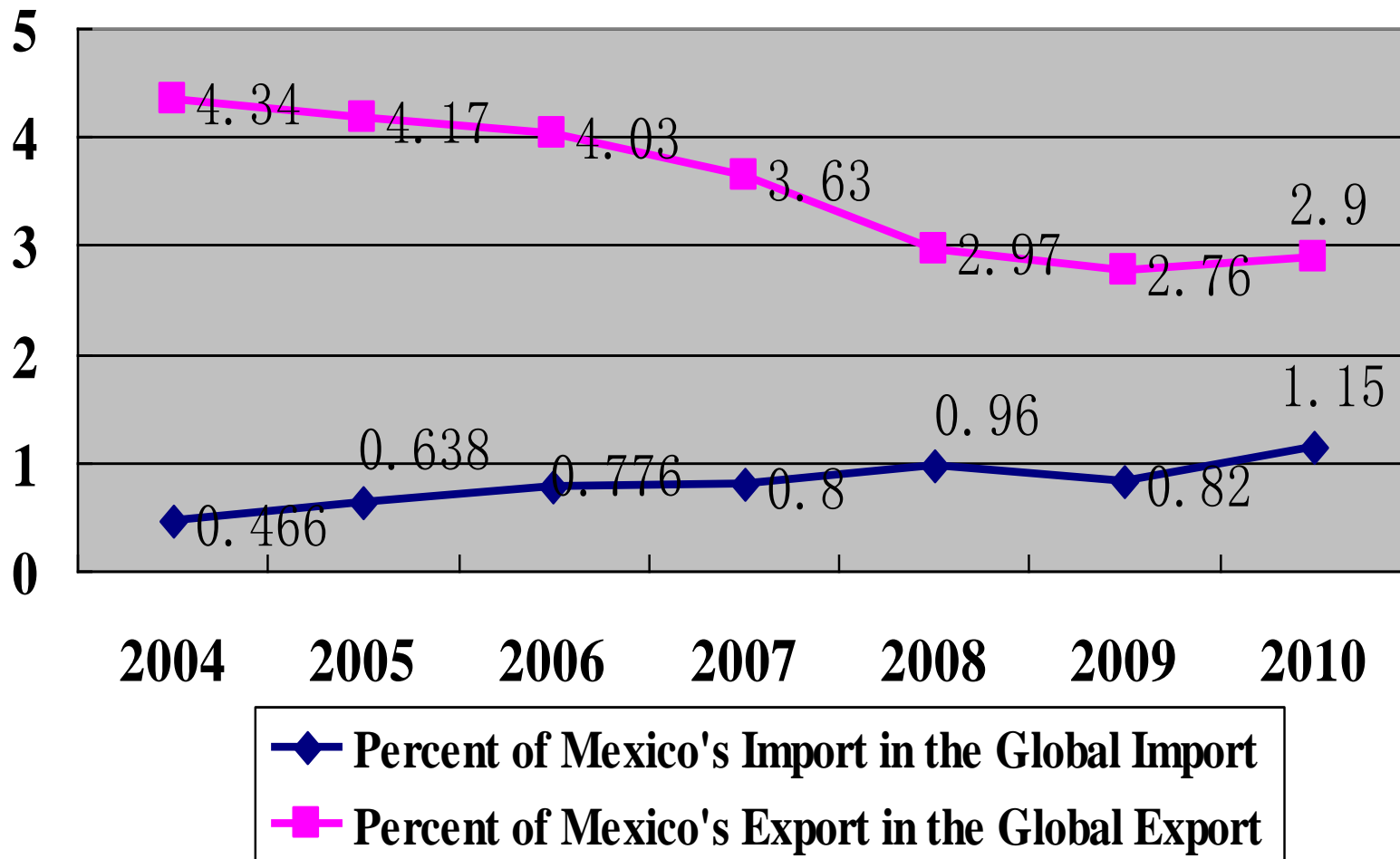


## Mexico's Oil Export to U.S



Source: BP Statistical Review of World Energy from 2005 to 2011

## Mexico's Oil Trade in the Global Oil Market %



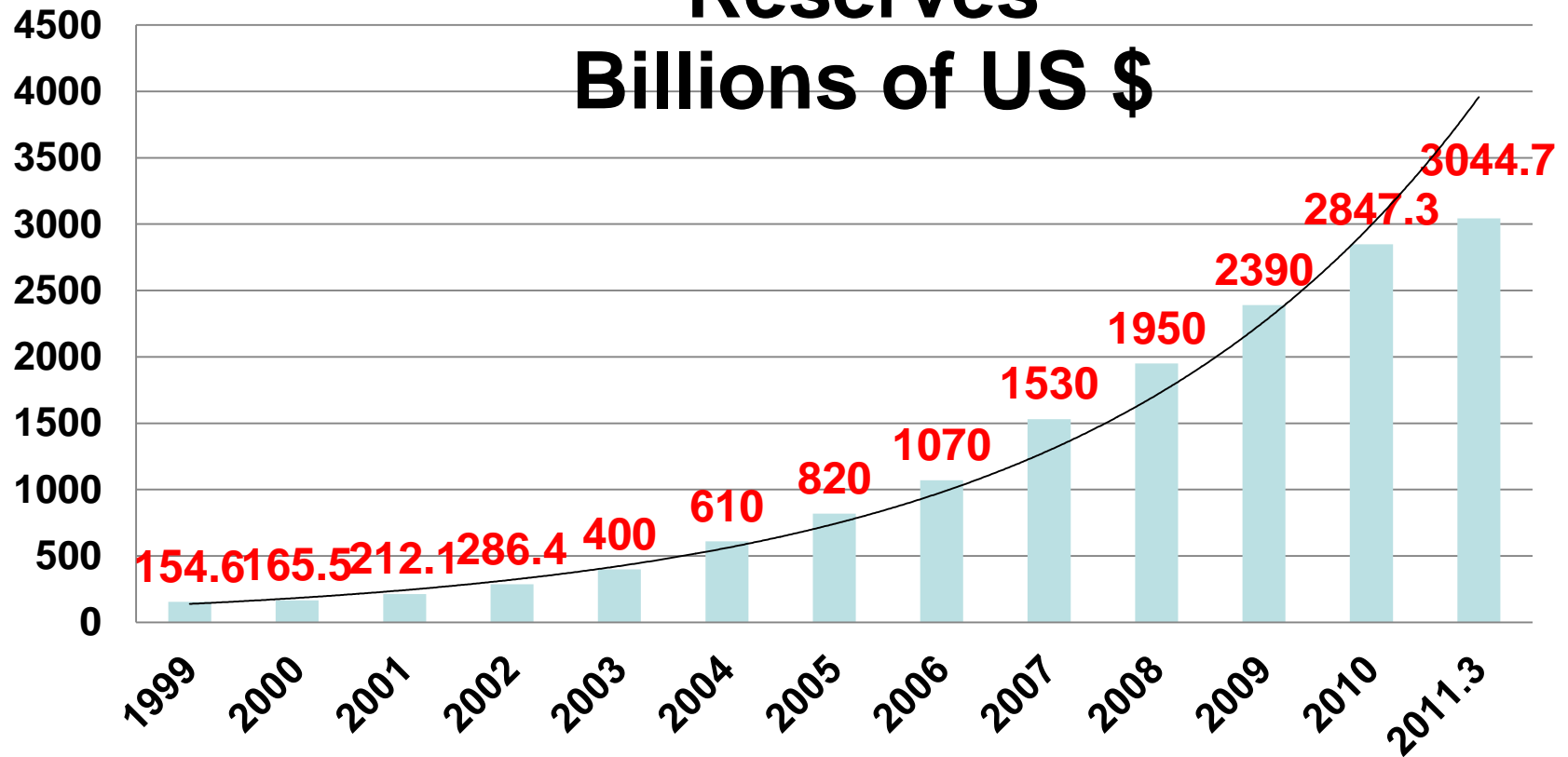
Source: BP Statistical Review of World Energy from 2005 to 2011

- ***EIA International Energy Outlook 2010:***
- *Over the long-term, Mexico will become a net oil importer by 2020, with net imports of over 1 million bbl/d by 2035.*
- *As one of the largest oil exporters to the United States, this has important implications for future U.S. energy supplies.*
- *From Mexico's perspective, changing into a net oil importer would have important repercussions on the overall economy.*

- **Energy Security Relation between U.S and Mexico:**  
**Interdependent and Integrated**
- *If the energy problems possibly happen in Mexico, What would be the U.S response?*
- Or U.S have yet made Mexico included in its energy security strategic plan ?.
- *Current Step: Agreement to cooperate on oil, gas drilling in the Gulf of Mexico in Feb, 2012*
- *How to define China's Role in U.S and Mexico's energy Security? Under the context of China's rising energy cooperation with South America.*

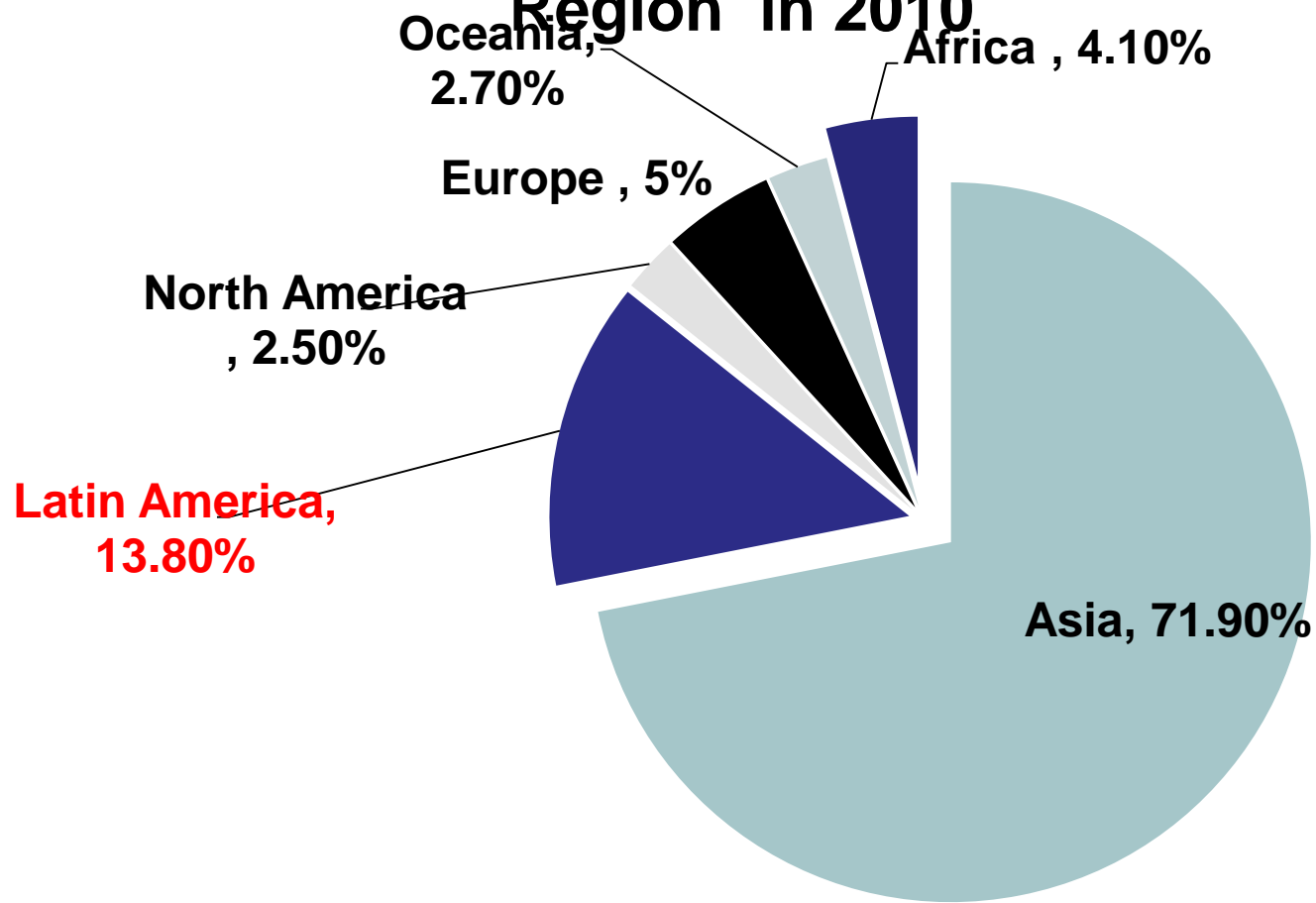
# China's Accumulated Foreign Reserves

## Billions of US \$



Source: The People's Bank of China.

# China's Outward Investment inflow by Region in 2010



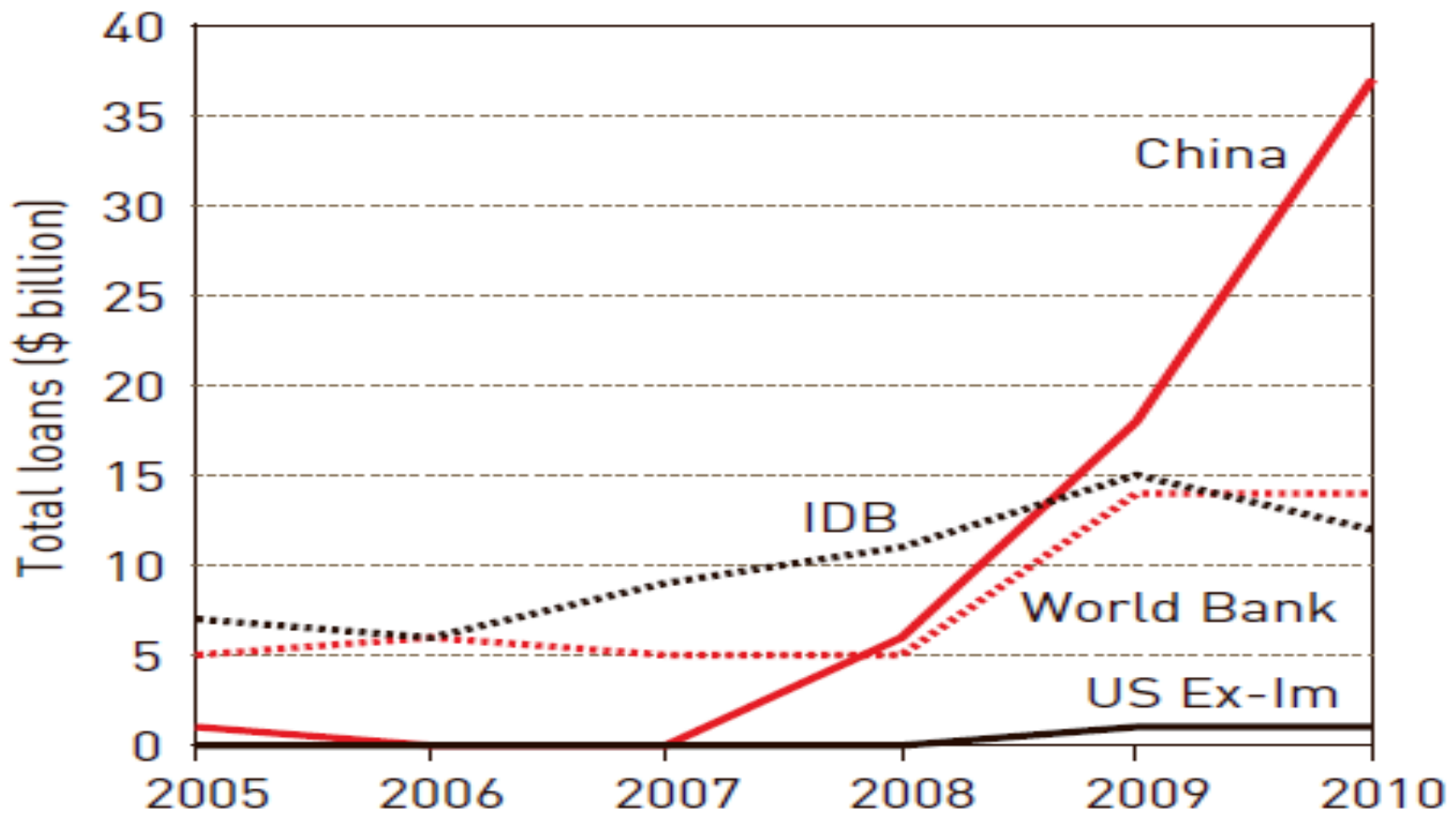
Source: 2010 Statistical Bulletin of China's Outward Foreign Direct Investment

# China's Outward FDI Flows by Country in LAC

## Millions of USD

Country /Region	2006	2007	2008	2009	2010
Latin America	6466	8,469	4,902	7,328	10,538
Argentina	6.22	136.69	10.82	-22.82	27.23
Brazil	10.09	51.13	22.38	116.27	487.46
<b>Cayman Is</b>	<b>7,833</b>	<b>2,602</b>	<b>1,524</b>	<b>5,366</b>	<b>3,496</b>
Chile	6.56	3.83	0.93	7.78	33.71
Columbia	-3.36	0.22	6.76	5.74	6.94
Ecuador	2.46	3.58	-9.42	17.90	22.06
<b><i>Mexico</i></b>	<b><i>-3.69</i></b>	<b><i>17.16</i></b>	<b><i>5.63</i></b>	<b><i>0.82</i></b>	<b><i>26.73</i></b>
Panama	--	8.33	6.52	13.69	26.06
Peru	5.40	6.71	24.55	58.49	139.03
<b>Br Virgin Is</b>	<b>538.11</b>	<b>1,876</b>	<b>2,104</b>	<b>1,612</b>	<b>6,120</b>
Venezuela	18.36	69.53	9.78	115.72	94.39

### Figure 1. Comparison of Chinese and Western Bank Loans to Latin America



World Bank, IDB, US Ex-Im Sources: respective Annual Reports



**Table 7. Chinese Loans-for-Oil in Latin America**

Year	Borrowing Country	Borrower	Lender	Amount (\$m)	Purpose
2008	Venezuela	BANDES and PDVSA	CDB	4,000	Funding infrastructure, other projects
2009	Brazil	Petrobras	CDB	10,000	Pre-salt oil technology
2009	Ecuador	Petroecuador	PetroChina	1,000	Advance payment for Petroecuador oil
2009	Venezuela	BANDES and PDVSA	CDB	4,000	Infrastructure, including satellite
2010	Ecuador	Petroecuador	CDB	1,000	80% discretionary, 20% oil-related
2010	Venezuela	BANDES and PDVSA	CDB	20,000	Funding infrastructure
2011	Ecuador	Government	CDB	2,000	70% discretionary, 30% oil-related
2011	Venezuela	PDVSA	CDB	4,000	Infrastructure
2011	Venezuela	PDVSA	ICBC	4,000	Housing

Sources: See Annex

**KEVIN P. GALLAGHER, AMOS IRWIN, KATHERINE KOLESKI**

- Sino-Latin American energy cooperation is an important part of the global changing energy order in the Western Hemisphere.
- However, U.S is still the largest stake-holder for its energy interest in LAC, playing a dominant role both in crude oil trade movement and in market influence.
- Without a doubt, Venezuela and Brazil will become a highly potential strategic partners for China's energy security needs.
- *Mexico ?*

Thank you !