

# **Changing Thai Agriculture Sector in the Forthcoming AEC**

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- 1.Changing Thai Agricultural Productions
- 2.Changes in Top 20 Exports 1991 to 2012
- 3.Food Security (selected food balance sheet)
- 4.Current Major Policies
- 5.Future Challenges

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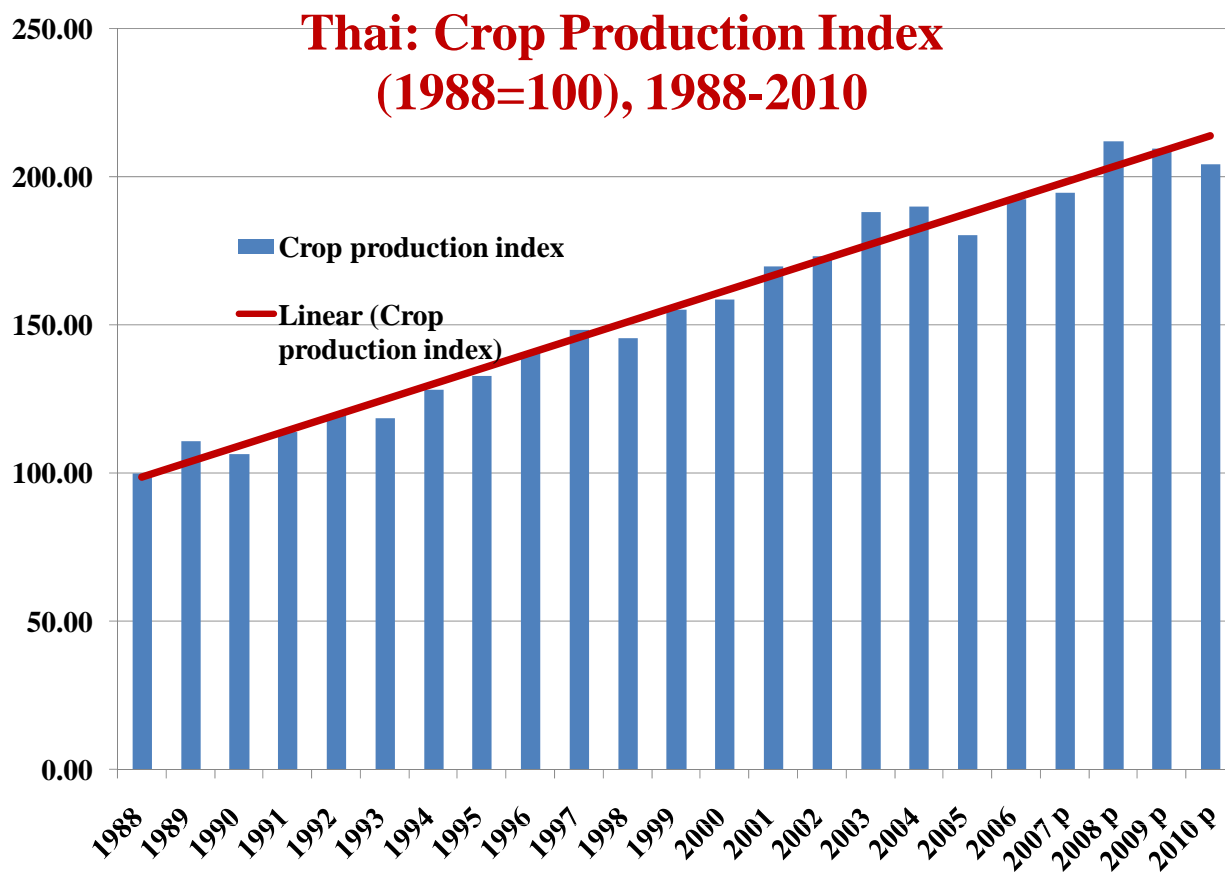
# Agricultural Crops Production Index

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## Production Index 1/2

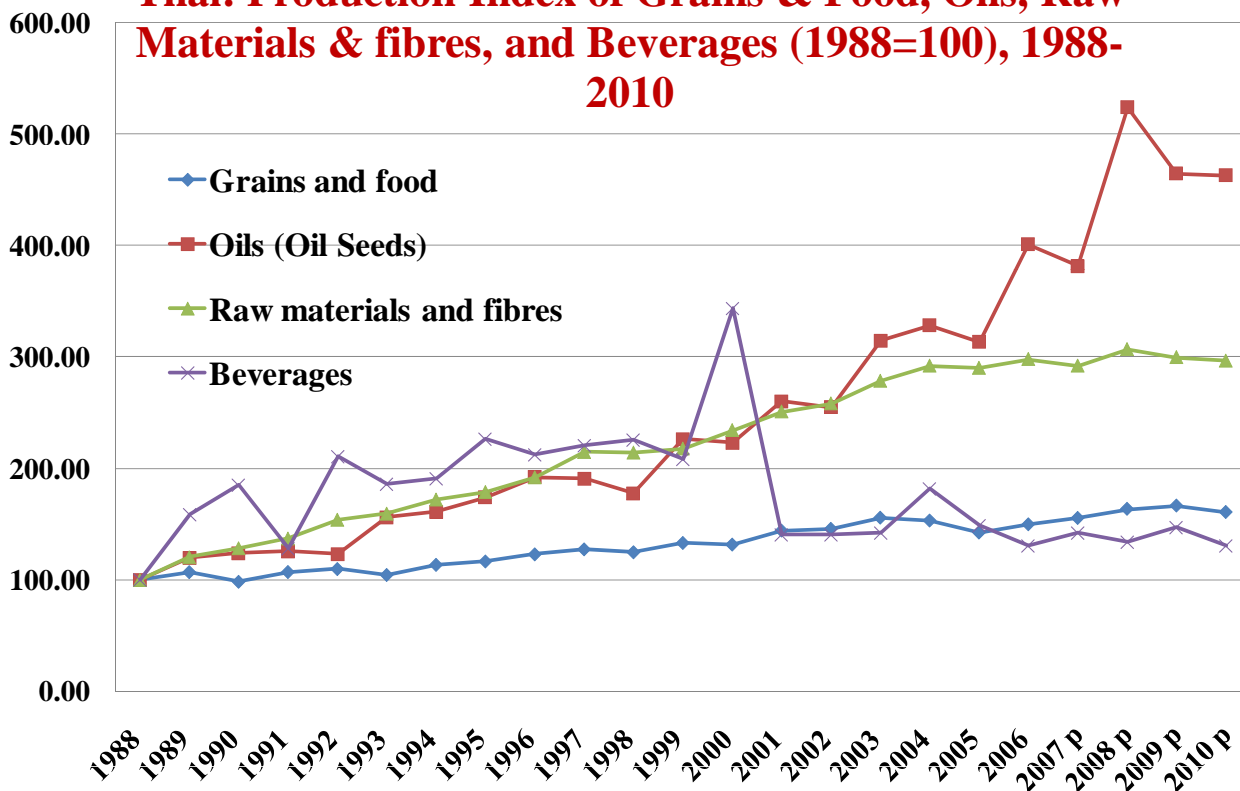


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### Thai: Production Index of Grains & Food, Oils, Raw Materials & fibres, and Beverages (1988=100), 1988-2010



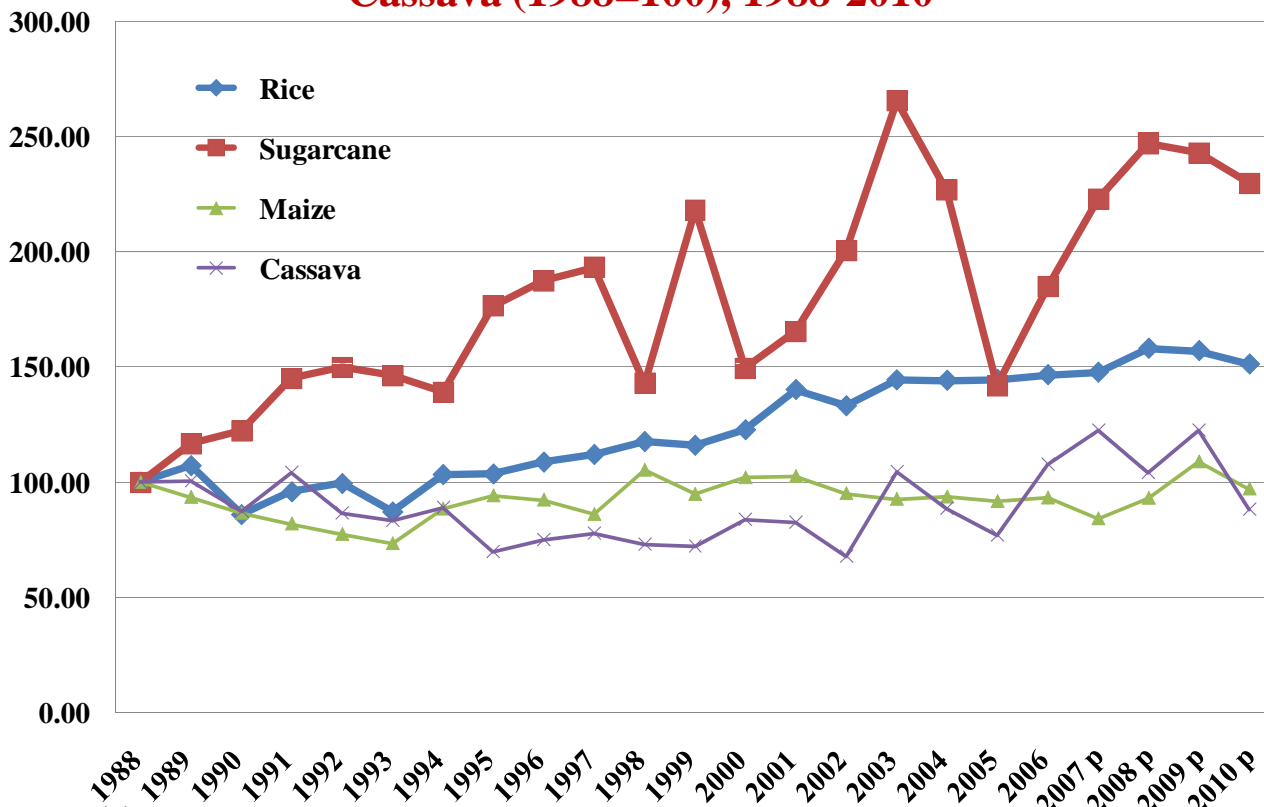
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#### (1) Grains and Food

### Thai: Production Index of Rice, sugar, Maize and Cassava (1988=100), 1988-2010



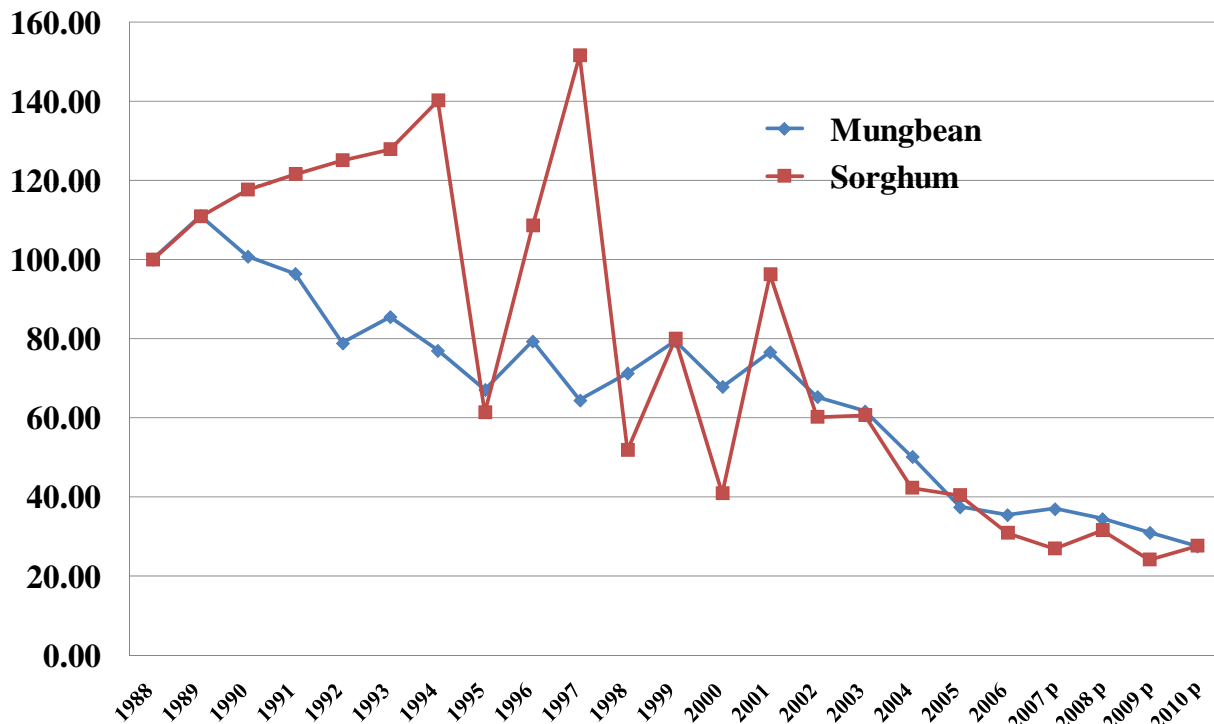
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**(1) Grains and Food**

**Thai: Production Index of Mungbean and Sorghum (1988=100), 1988-2010**



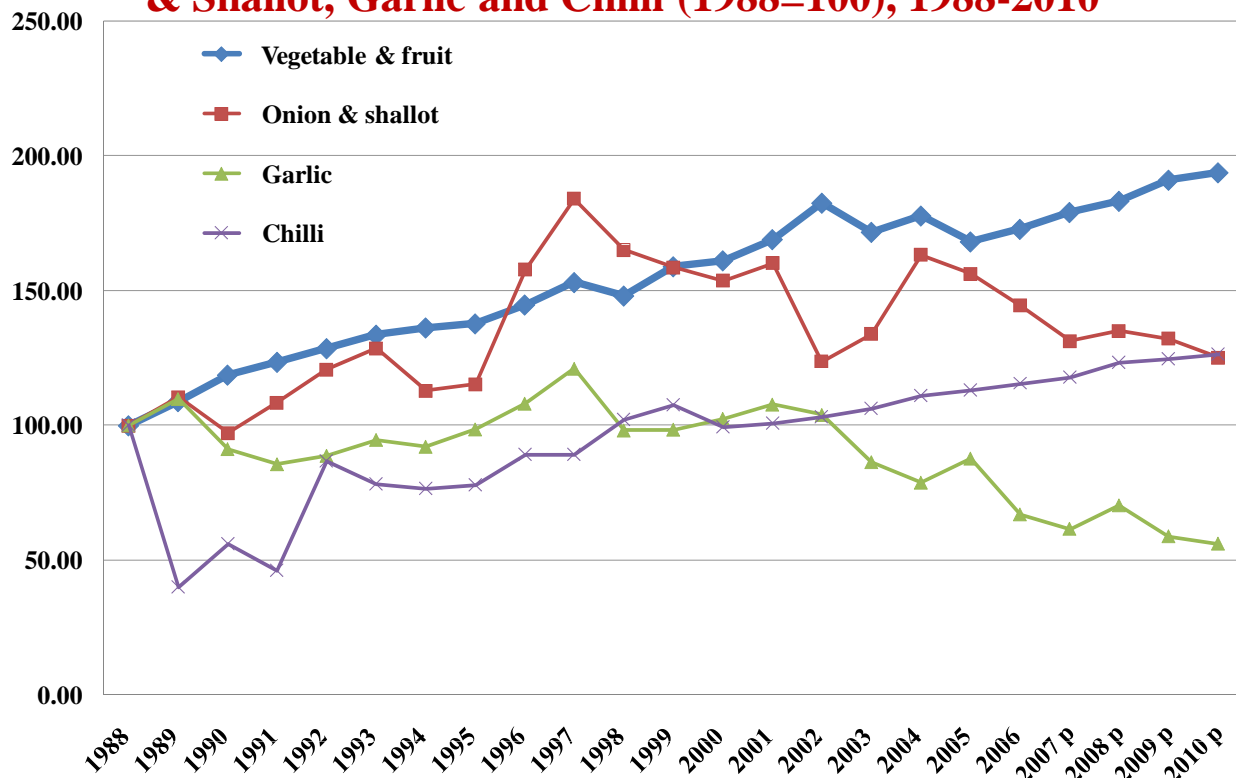
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**(1) Grains and Food**

**Thai: Production Index of Vegetable & fruit, Onion & Shallot, Garlic and Chilli (1988=100), 1988-2010**

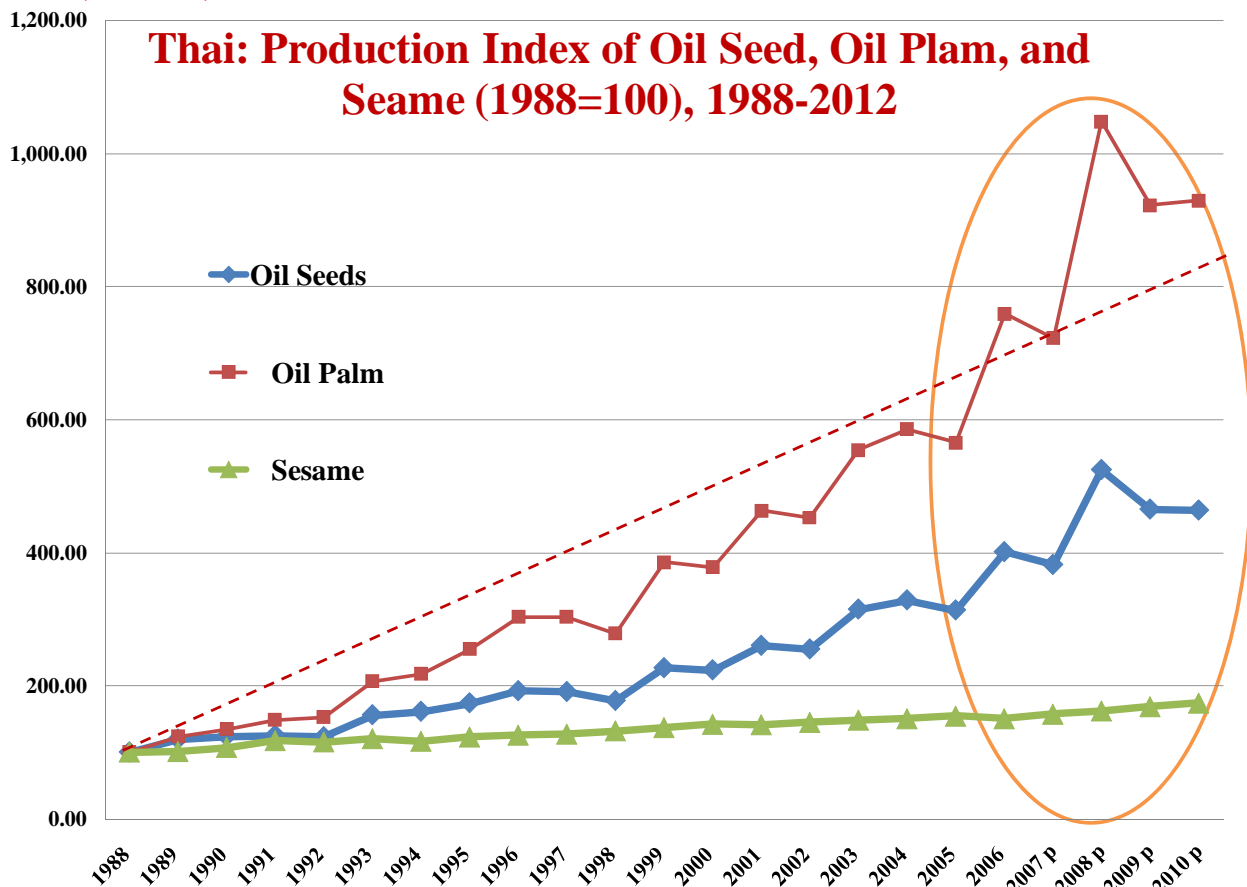


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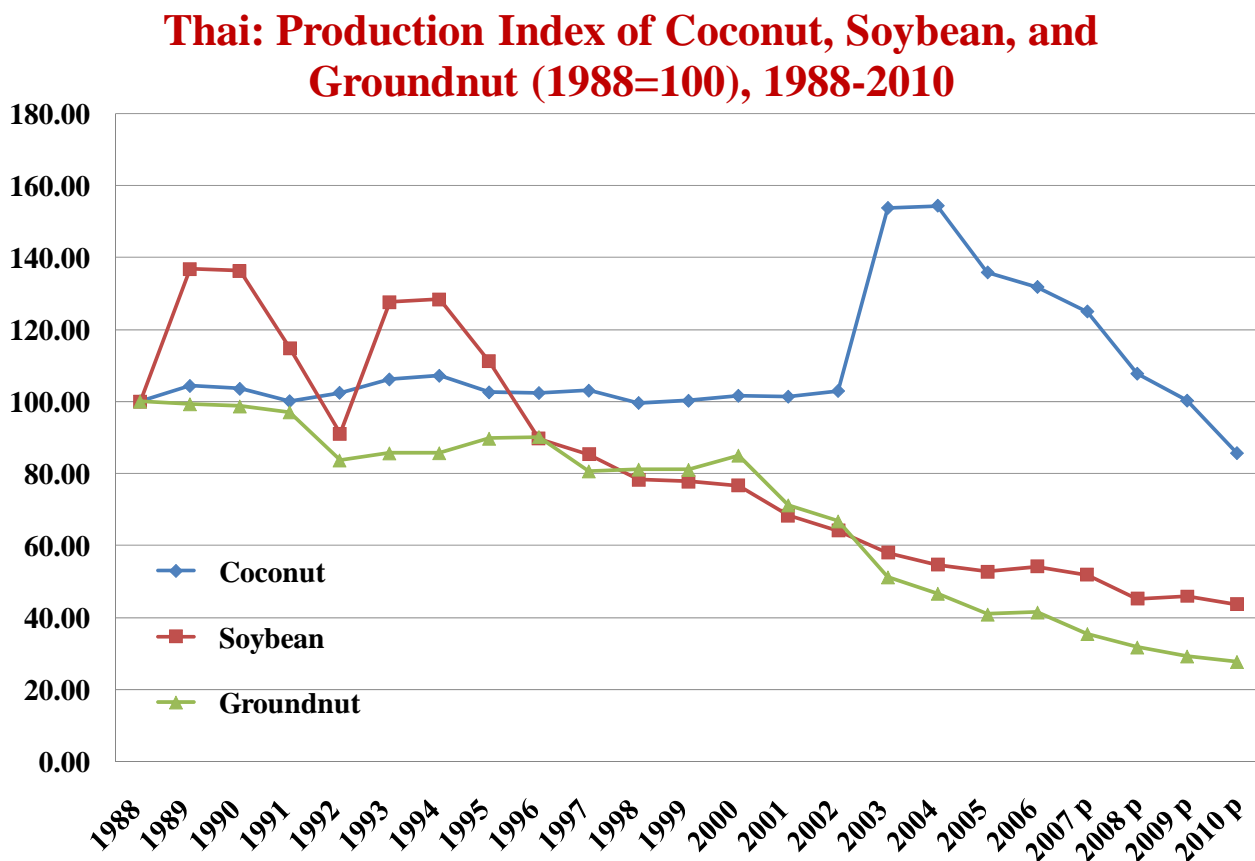
**(2) Oils (Oil Seed)**



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**(2) Oils (Oil Seed)**

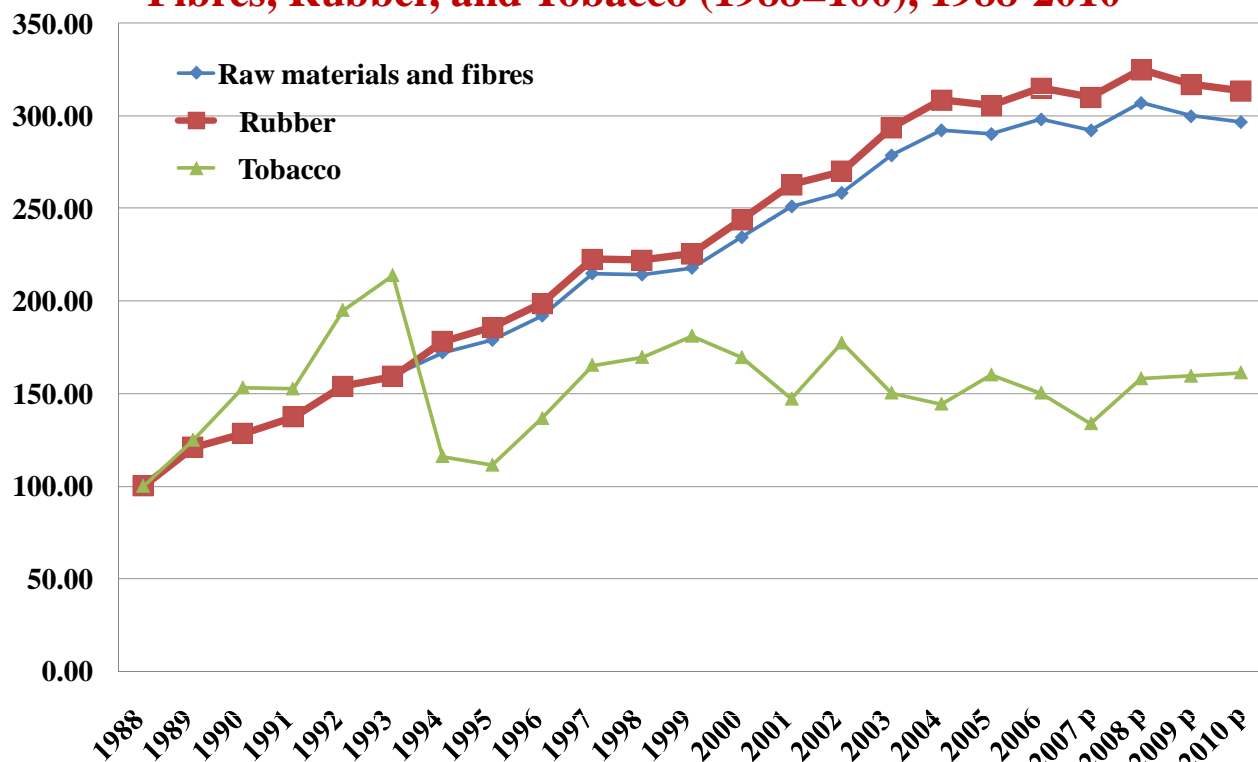


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**(3) Raw materials and fibres**

**Thai: Production Index of Raw materials & Fibres, Rubber, and Tobacco (1988=100), 1988-2010**



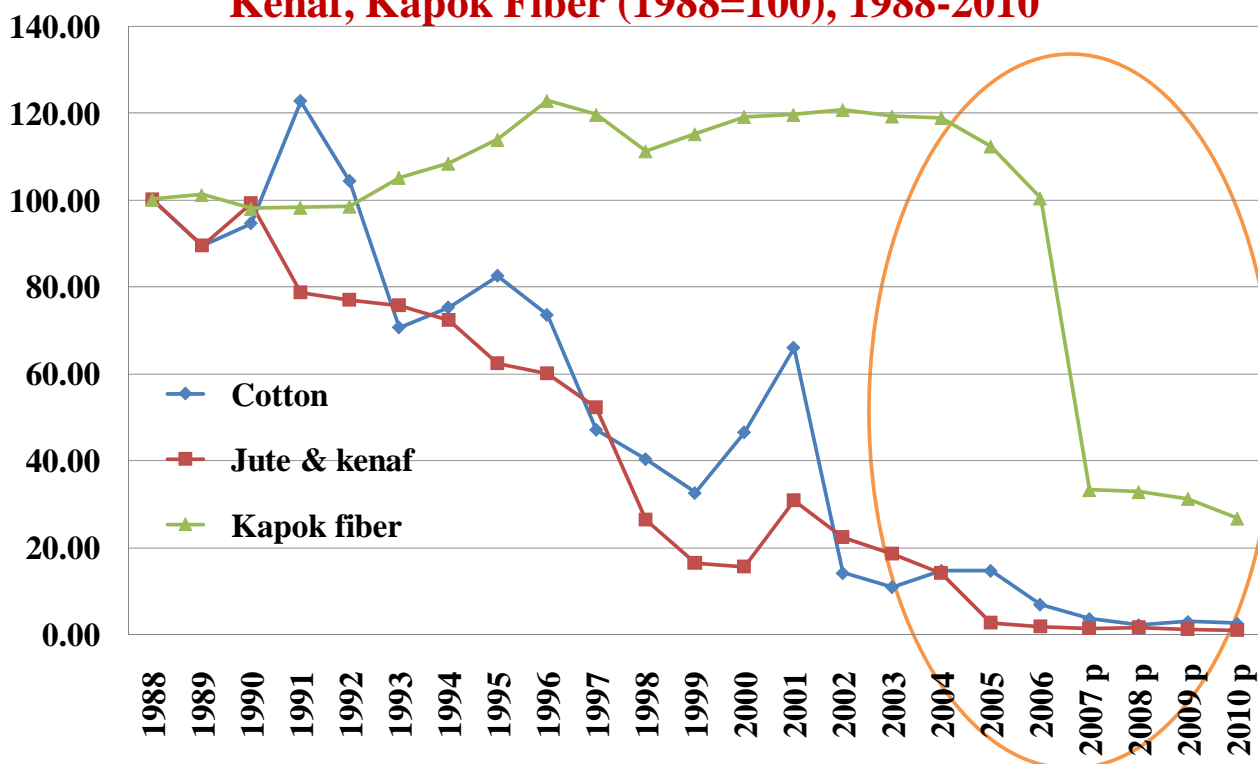
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**(3) Raw materials and fibres**

**Thai: Thai: Production Index of Cotton, Jute & Kenaf, Kapok Fiber (1988=100), 1988-2010**



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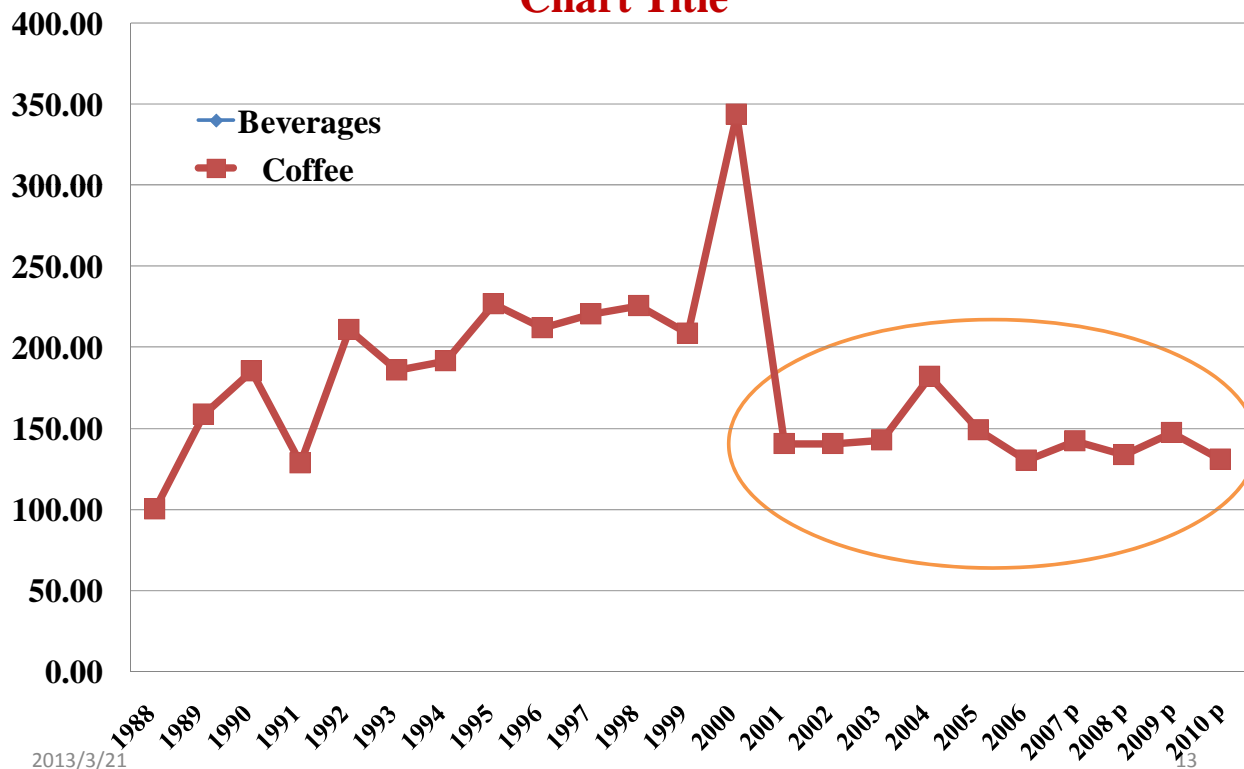
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**(4) Beverages**

**Thai: Production Index of Beverages and Coffee  
(1988=100), 1988-2010**

**Chart Title**

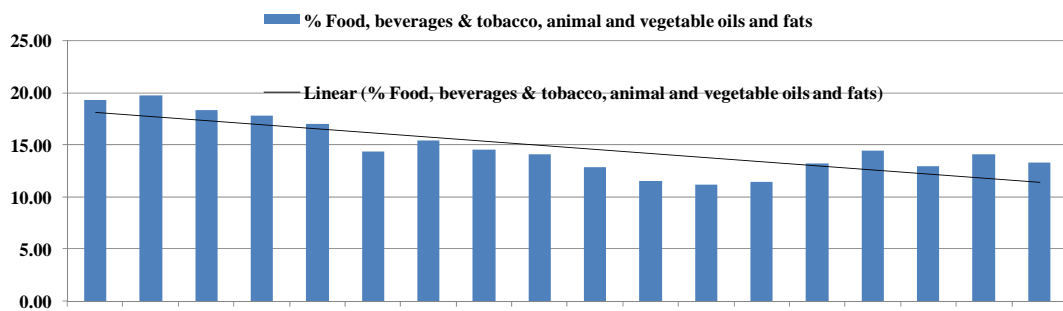
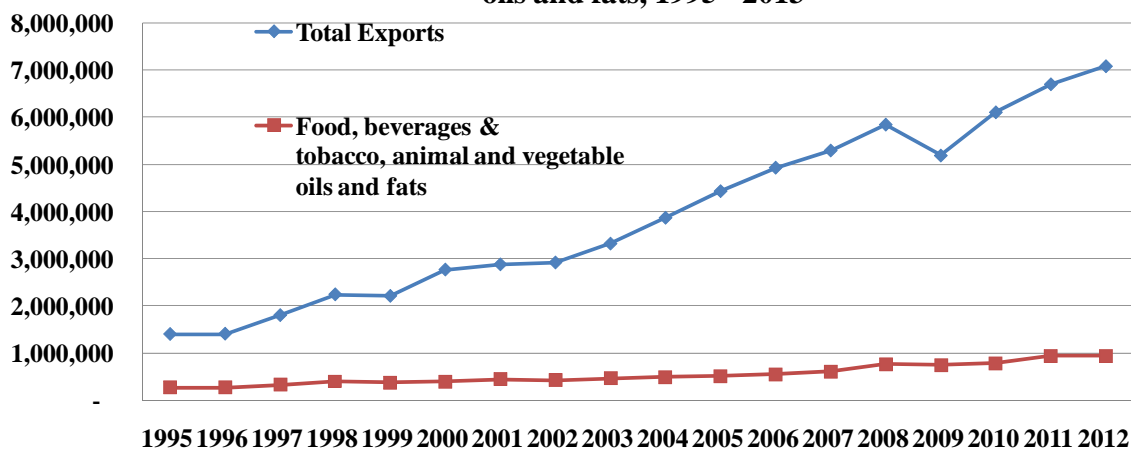


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**1-Trade Total Agr.**  
Million baht

**Thai: Total export and exports of food & beverages, animal and vegetable oils and fats, 1995 - 2013**



Source: Bank of Thailand Retrieved date : 02 Mar 2013 15:38

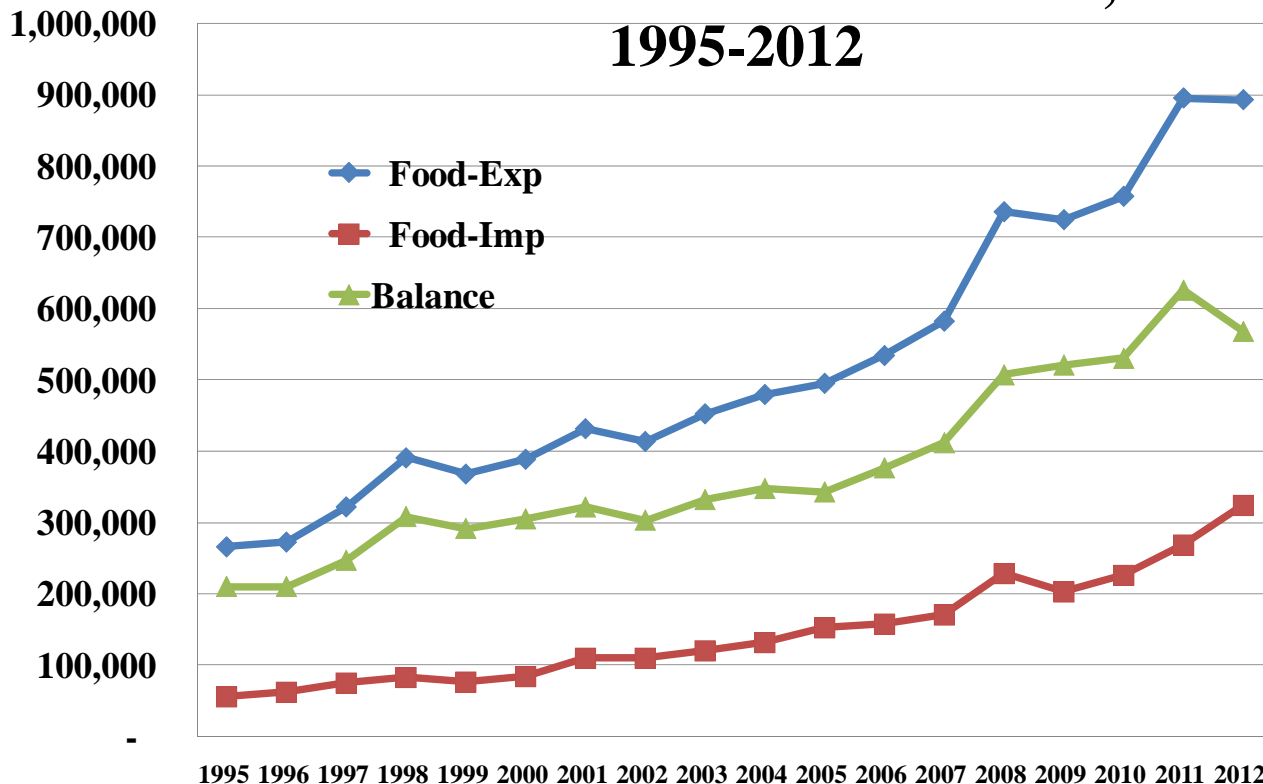
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2- Trade Food

Million baht

### Thai: Food trade and balance, 1995-2012



Source: Bank of Thailand Retrieved date : 02 Mar 2013 15:38

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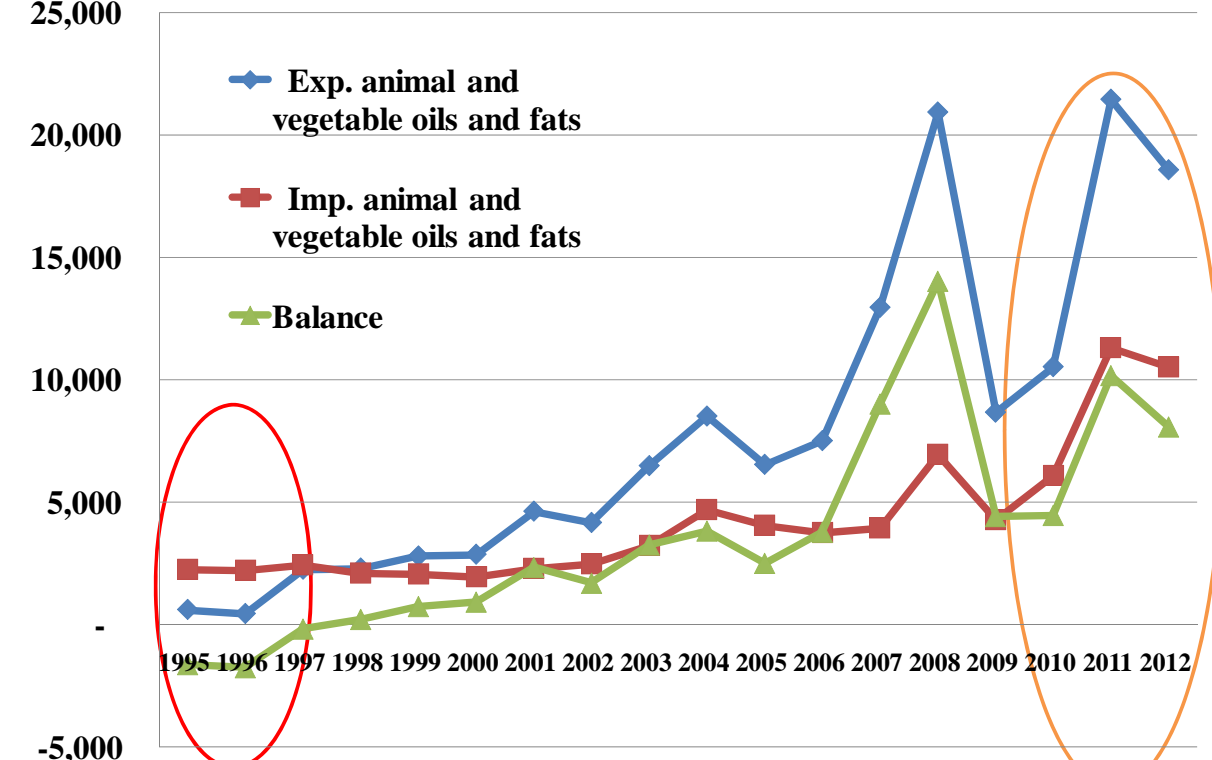
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3- Trade Ani. Veg. Oil and Fats

Million baht

### Thai: Export and import of animal and vegetable oils and fats, and balance



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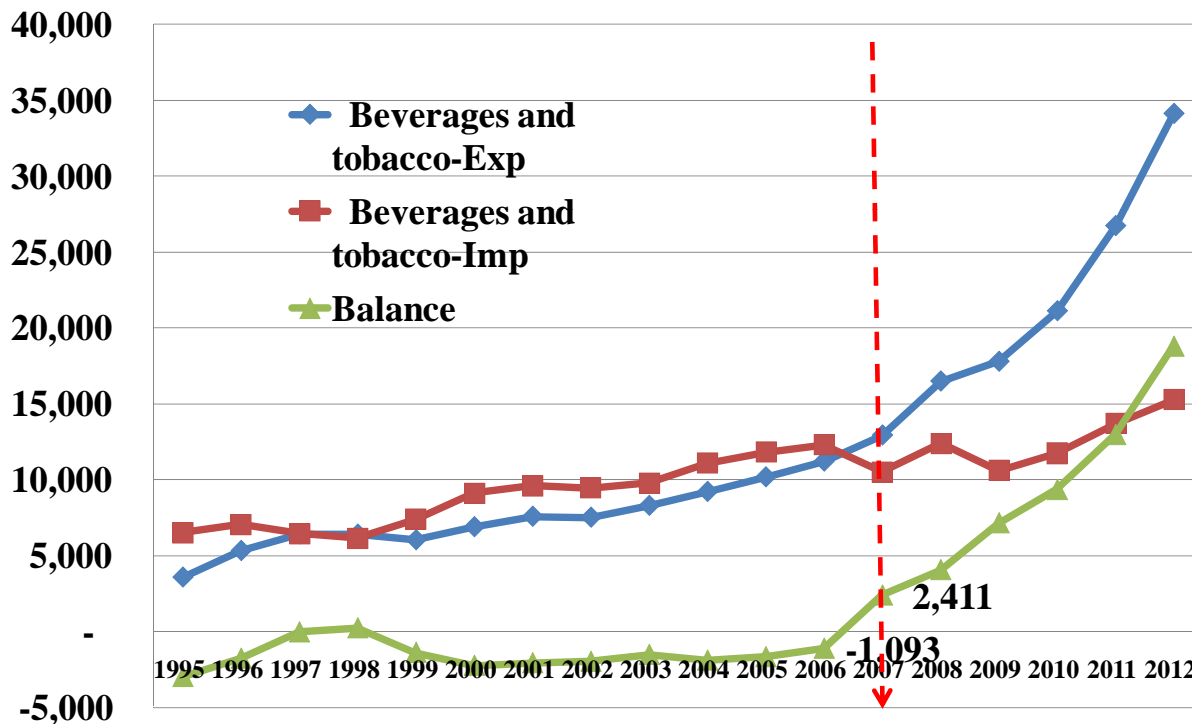
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### Thai: Beverage & tobacco trade and balance, 1995-2012

Million baht



Source: Bank of Thailand Retrieved date : 02 Mar 2013 15:38

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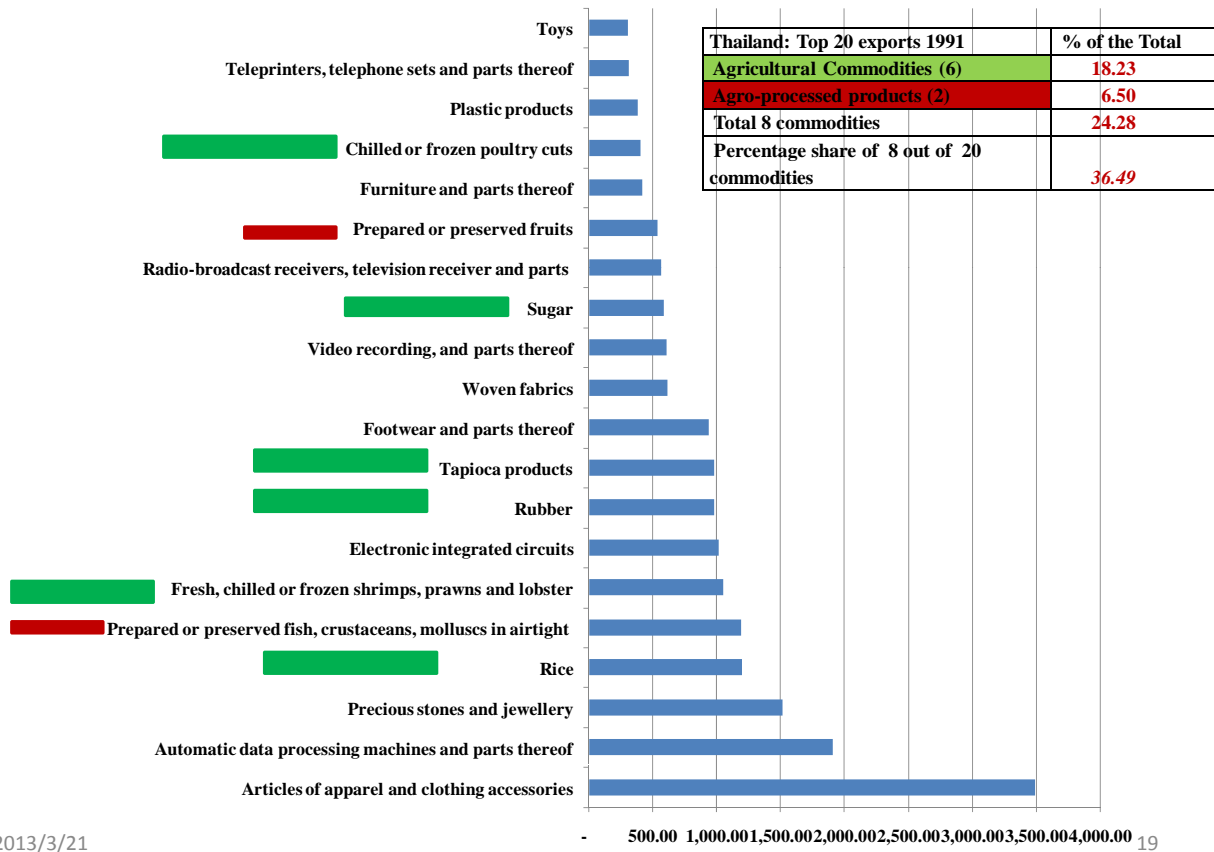
## Thailand: Changes in Top 20 Exports 1991 to 2012

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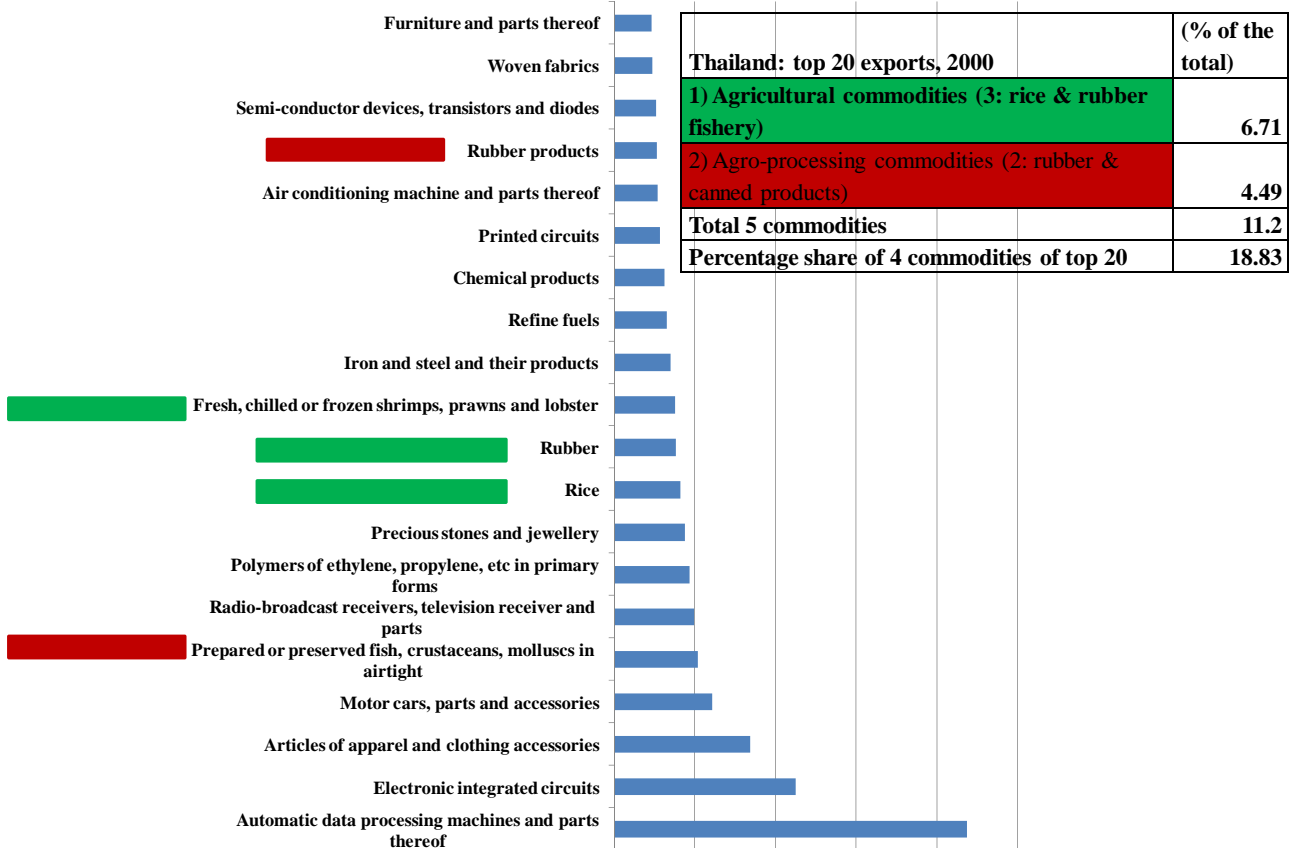
## Thailand: Top 20 export , 1991 (mil. US\$)



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## Thailand: Top 20 export , 2000 (mil. US\$)



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		2009	2010	2011	2012
1	Motor cars, parts and accessories	7.30	9.16	7.63	9.98
2	Automatic data processing machines and parts thereof	10.51	9.74	7.67	8.30
3	Precious stones and jewellery	6.40	6.03	5.53	5.73
4	Refine fuels	4.13	4.03	4.53	5.62
5	Rubber	2.82	4.08	5.70	3.81
6	Polymers of ethylene, propylene, etc in primary forms	2.92	3.28	3.95	3.72
7	Chemical products	2.93	2.99	3.73	3.71
8	Rubber products	2.94	3.33	3.77	3.66
9	Iron and steel and their products	3.25	2.40	2.24	3.07
10	Electronic integrated circuits	4.23	4.17	3.55	2.91
11	Machinery and parts thereof	2.18	2.52	2.75	2.72
12	Prepared or preserved fish, crustaceans, molluscs in	2.44	2.13	2.27	2.28
13	Other electrical equipment and parts thereof	2.19	2.32	2.26	2.05
14	Rice	3.31	2.76	2.89	2.02
16	Air conditioning machine and parts thereof	1.62	1.76	1.74	1.78
17	Sugar	1.18	1.11	1.63	1.72
18	Plastic products	1.51	1.48	1.47	1.45
19	Spark-ignition reciprocating internal combustion piston	1.03	1.30	1.32	1.40
20	Articles of apparel and clothing accessories	1.94	1.66	1.47	1.29
	Total 20 records	<b>66.93</b>	<b>68.36</b>	<b>68.01</b>	<b>69.07</b>
	Other	33.07	31.64	31.99	30.93
	Total	100.00	100.00	100.00	100.00

## Thai: Export share of agricultural Commodity and agro-processed products

Thailand: top 20 exports, 2009-2012 (% of the total exports)	1991	2009	2010	2011	2012
1) Agricultural commodities (3: rubber rice and sugar)	18.23	7.31	7.95	10.2	7.55
2) Agro-processed products (2: rubber products and prepared or preserved fish, crustaceans, molluscs in airtight)	24.28	5.38	5.46	6.04	5.94
<b>Total</b>	<b>24.28</b>	<b>13</b>	<b>13</b>	<b>16</b>	<b>13</b>
<b>Percentage of the 5 commodities of top 20 commodities</b>	<b>36.49</b>	<b>19</b>	<b>20</b>	<b>24</b>	<b>20</b>

# Thai: Selected Food Balance sheets

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## Thai: Paddy supply and utilization account (unit: million ton of paddy)

	2008	2009	2010	2011	2012	Y-O-Y (2011- 2012)
<b>Production</b>	<b>32.099</b>	<b>31.65</b>	<b>32.396</b>	<b>36.004</b>	<b>34.593</b>	<b>2.82</b>
<b>Domestic utilization</b>	<b>14.927</b>	<b>14.967</b>	<b>15.757</b>	<b>13.904</b>	<b>13.937</b>	<b>-2.09</b>
<b>Export</b>	<b>15.479</b>	<b>13.061</b>	<b>13.545</b>	<b>16.221</b>	<b>9.848</b>	<b>-6.64</b>
<b>Export of rice</b>	<b>10.216</b>	<b>8.620</b>	<b>8.939</b>	<b>10.705</b>	<b>6.499</b>	

Remarks; conversion paddy : rice = 1:0.66

Source: Computed from "Status and trend of major agricultural products in 2013" OAE, MOAC, Table 9 page 13

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## Thai: Palm oil balance sheet 2008-2012 (Unit: ton)

	Beginning stock 1/	Production 2/	Import 3/	Total available supply 4/	Export 5/	Domestic consumption 6/	Biodiesel	Ending stock 7/	Total utilization 8/
2008	88,916	1,543,761	28,385	1,661,062	288,054	989,061	276,000	107,947	1,661,062
2009	107,947	1,387,604	-	1,495,551	67,292	910,700	380,000	137,559	1,495,551
2010	137,559	1,287,509	-	1,425,068	65,942	911,339	380,000	67,787	1,425,068
2011	67,787	1,832,151	59,793	1,959,731	388,939	896,464	376,742	297,586	1,959,731
2012	297,586	1,925,532	40,056	2,263,174	300,000	1,000,000	607,111	356,063	2,263,174
Gr. rate %	21.54	7.46	-	9.3	20.15	0.06	16.98	37.14	9.3
2013*	356,063	2,042,698	-	2,398,761	300,000	1,000,000	610,000	488,761	2,398,761

Remarks: (1) stock and production figures 1/ 2/ and 7/ were reported by oil crushers; (2) import 3/ and export 4/ are crude palm oil from The Customs Department; and (3) figures for year 2012 and 2013 were estimated by OAE

Source: 1/ 2/ 6/ and 7/ from Department of Internal Trade MOC, 3/ and 5/ from The Customs Department

## Thai: Maize domestic utilization and trades, crop year 2007/08 - 2012/13

	Domestic utilization 1/	Export 2/	Import 2/ (Mil. Ton)	Balance
	(Million ton)	(Million ton)	(Million ton)	(Million ton)
2007/08	3.96	0.07	0.25	-0.18
2008/09	3.89	0.46	0.51	-0.05
2009/10	4.21	1	0.24	0.76
2010/11	4.28	0.21	0.39	-0.18
2011/12	4.36	0.29	0.18	0.11
2012/13 *	4.67	0.15-0.25	0.20-0.30	

Remarks: \* estimated by OAE

Source: 1/ OAE, MOAC; and 2/ The Customs Department

## Thai: Soybean balance sheet (supply and utilization account) (unit: ton)

	Supple			Utilization				Total Demand
	Production	<i>Import</i>	Total supply	Oil crushing	Seed	Processing	<i>Export</i>	
2008	184,011	<i>1,723,273</i>	1,907,284	1,271,716	13,549	620,820	<i>1,199</i>	1,907,284
2009	186,853	<i>1,534,551</i>	1,721,404	1,275,296	13,358	431,454	<i>1,296</i>	1,721,404
2010	169,577	<i>1,818,707</i>	1,988,282	1,542,307	11,887	433,134	<i>954</i>	1,988,282
2011	126,521	<i>1,994,378</i>	2,120,899	1,727,676	8,905	381,689	<i>2,629</i>	2,120,899
2012	107,479	<i>1,961,015</i>	2,068,494	1,659,478	7,484	399,502	<i>2,030</i>	2,068,494
Growth rate %	-13.63	<i>5.34</i>	3.78	8.72	-14.72	-9.55	<i>19.25</i>	3.78
2013*	104,370	<i>1,924,699</i>	2,029,069	1,663,275	7,182	356,612	<i>2,000</i>	2,029,069

Remarks: \* estimated by OAE

Source: OAE, MOAC

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## Thai: Current Agricultural policies

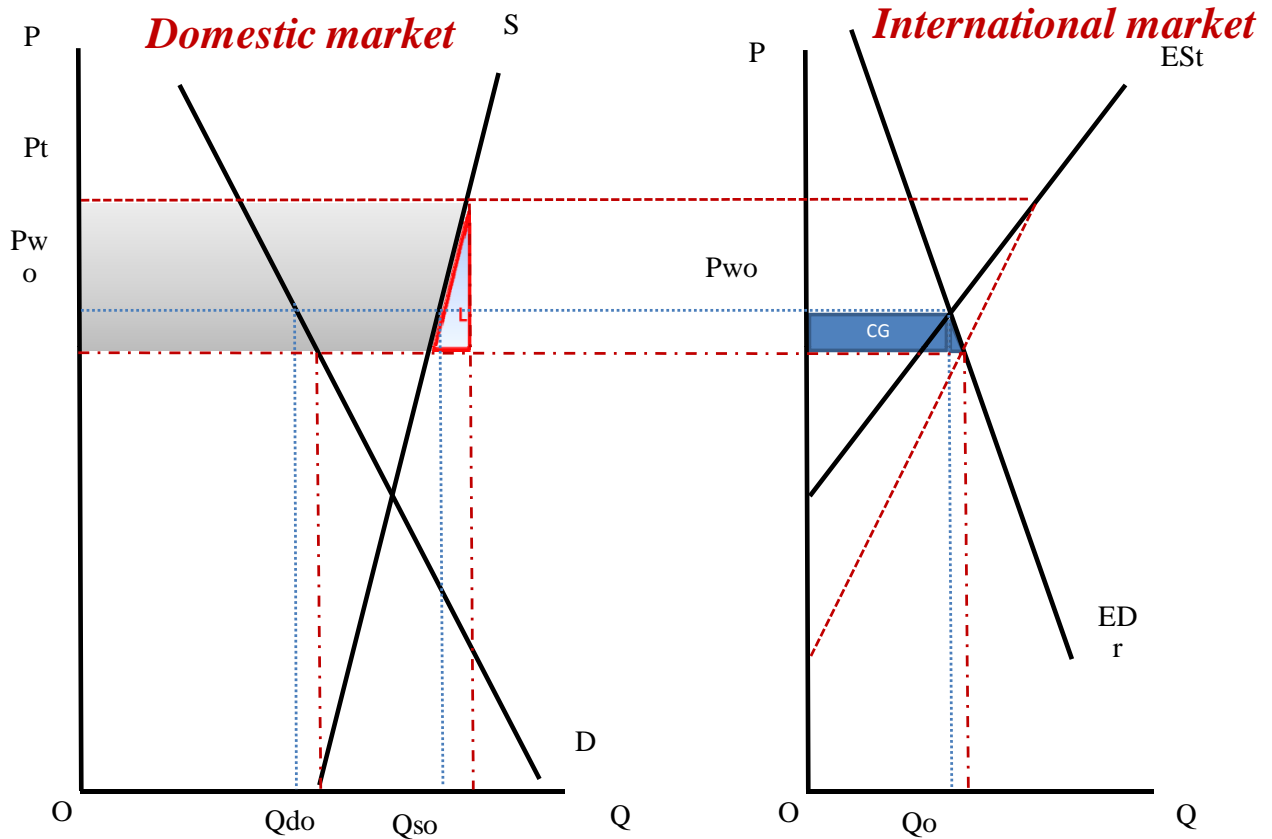
### Pledging programs

Rice

Cassava

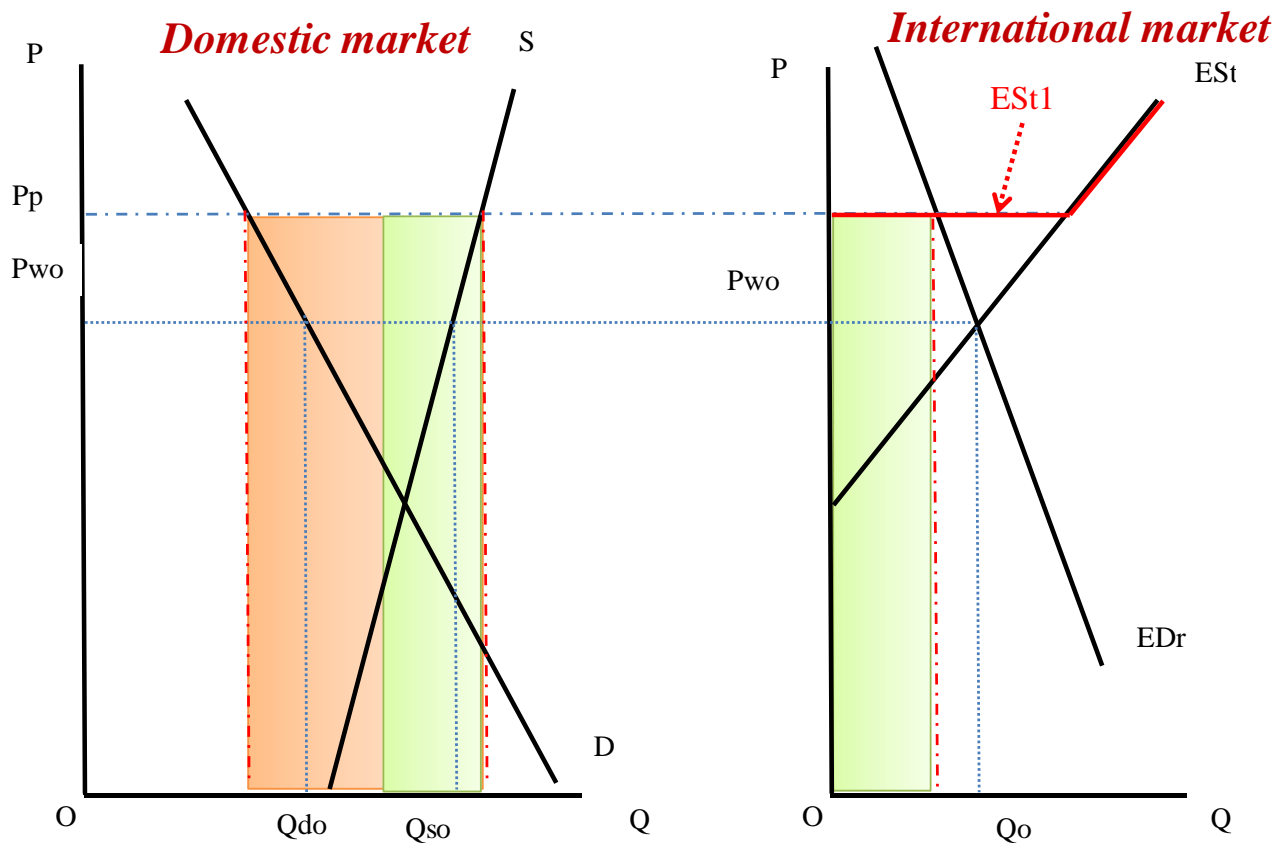
Maize

Rubber



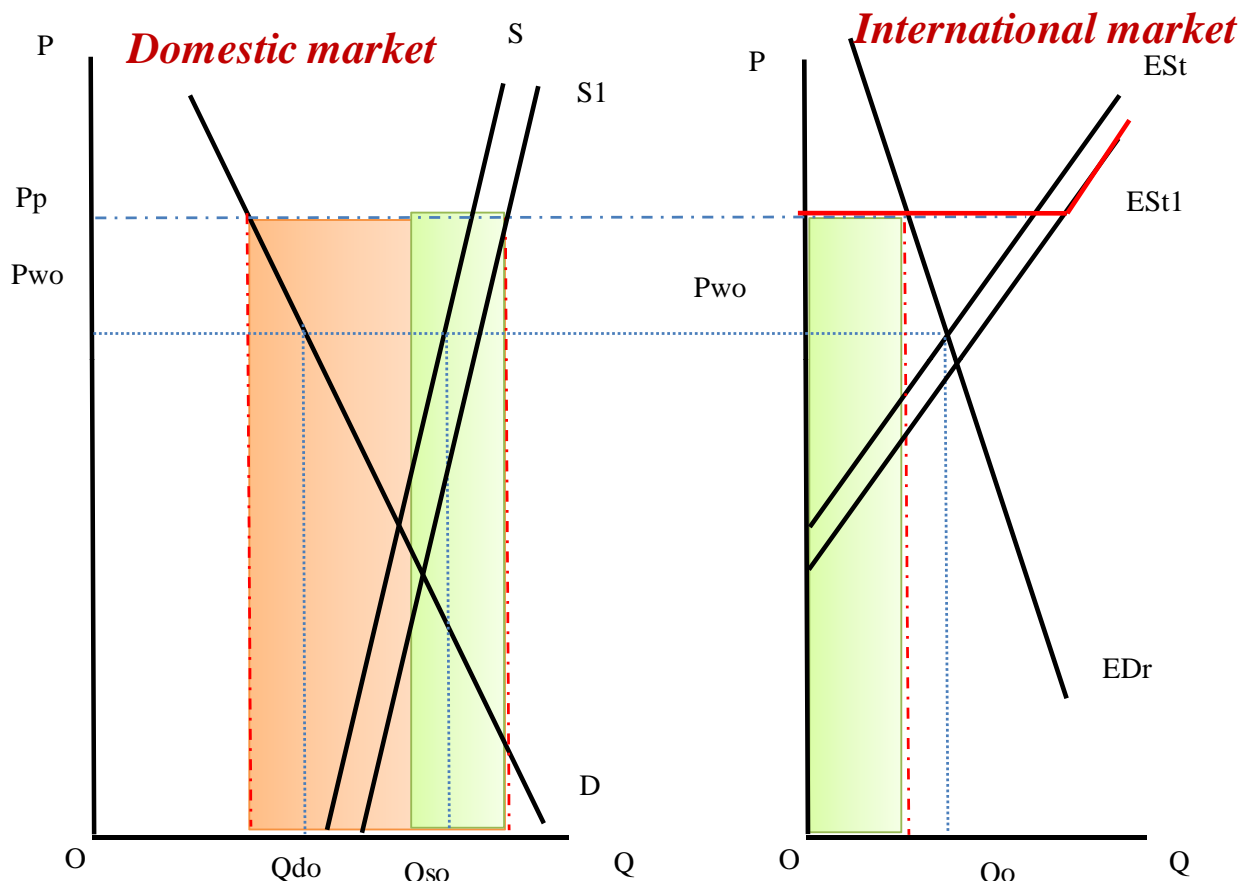
## Large country: income guarantee program

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## Large country: pledging program

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### Large country: pledging program with S shift

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## Expected Impacts of the Two Policies on Rice

	Income guarantee program	Pledging Program
World Price	Decreasing	Increasing
Domestic Price	Decreasing	Increasing
Production	Increasing	Increasing
Consumption	Increasing	Decreasing
Export	Increasing	Decreasing
Government Budget	Increasing	<b>Increasing</b>
Market Force	Working	Not Working
Accumulation of Govt. Stock	No	Yes (Very much)
Small Farmer	More Benefited	Less Benefited

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## **Income guarantee program Crop year 2009/10**

**(as of 10 Sep 2011)**

<b>Commodity</b>	<b>No. farms</b>	<b>No. Farms received payments</b>	<b>Total payments (Mil. Baht)</b>
Rice (Second crop)	3,273,626.00		
Cassava	427,290.00		
Maize	392,518.00		
<b>Total</b>	<b>4,093,434.00</b>	<b>3,955,334.00</b>	<b>36,488.00</b>

Source: Food security framework of Ministry of Agriculture and Co-operatives (2013-2016), September 2012 page 30-31

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## **Income guarantee program Crop year 2010/11 (as**

**of 3 June 2012)**

<b>Commodity</b>	<b>No. farms</b>	<b>No. Farms received payments</b>	<b>Total payments (Mil. Baht)</b>
Rice (Second crop)	4,502,148.00		
Cassava	480,079.00		
Maize	429,324.00		
<b>Total</b>	<b>5,411,551.00</b>	<b>3,676,634.00</b>	<b>57,864.48</b>

Source: Food security framework of Ministry of Agriculture and Co-operatives (2013-2016), September 2012 page 30-31

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## The income guarantee program government have to pay BAAC during 2009-2011

Crop year	Billion baht
2009/10	5
2010/11	32
<b>Total</b>	<b>37</b>

Source:

<http://www.bangkokbiznews.com/home/detail/business/business/20130301/49272/>,

1 March 2013

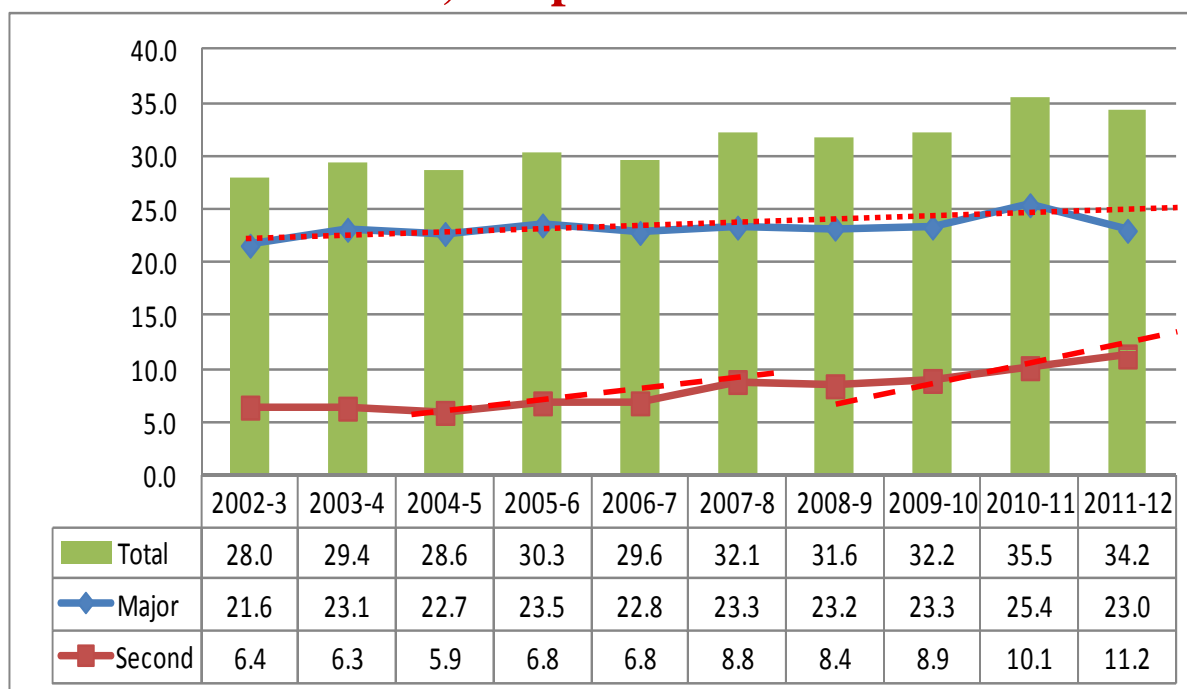
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### Pledging program (1/5)

## Thai Rice Production, Crop Years 2002–2003 to 2011–2012



Source: Office of Agricultural Economics (2012).

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Pledging program (2/5)

## Projected Major Rice Area Planted, Yield and Production, Crop Year 2011–2012 to 2012–2013

Rice Type	Area Planted (rai) <sup>1</sup>			Yield (kg/rai)			Production (tons)		
	2011–2012	2012–2013	+/- (%)	2011–2012	2012–2013	+/- (%)	2011–2012	2012–2013	+/- (%)
All rice	61,074,780	61,714,660	1.05	381	424	11.29	23,266,374	26,186,199	12.55
White	41,523,431	41,888,380	0.88	394	449	13.96	16,349,357	18,815,098	15.08
Glutinous	19,551,349	19,826,280	1.41	354	372	5.08	6,917,017	7,371,101	6.56

Source: Office of Agricultural Economics (2012).

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Pledging program (3/5)

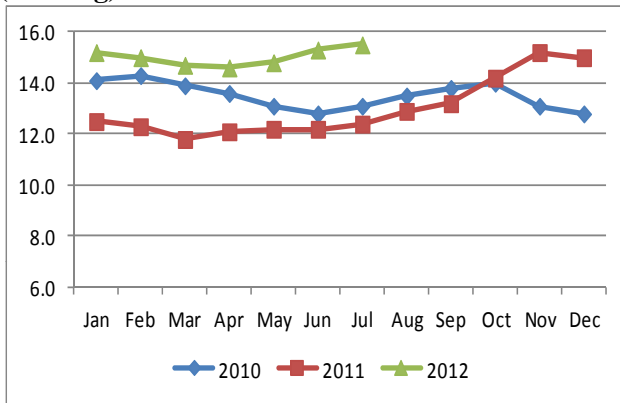
Thai: Price of paddy received by farmer and rice export price (Bangkok F.O.B.) of Hom malee, white rice and long grain glutinous

year	Hom mali			White rice			Long grain Glutinous rice		
	Price received by farmers (baht/ton)	Bangkok F.O.B 1/ (US\$/ton)	Bangkok F.O.B 1/ (baht/ton)	Price received by farmers 2/ (baht/ton)	Bangkok F.O.B 3/ (US\$/ton)	Bangkok F.O.B 3/ (baht/ton)	Price received by farmer 4/ (baht/ton)	Bangkok F.O.B 5/ (US\$/ton)	Bangkok F.O.B 5/ (baht/ton)
	2008	12,536	910	30,083	10,524	688	22,767	6,327	585
2009	13,819	937	31,884	9,468	554	18,912	9,363	524	17,818
2010	13,171	1,023	32,149	8,315	493	15,505	15,109	901	28,235
2011	14,961	1,043	31,537	9,662	550	16,634	13,614	999	30,204
2012 6/	15,700	1,100	34,100	10,200	585	18,000	12,300	800	24,500
Y-O-Y 2011-2012	4.71	5.18	7.52	5.27	5.98	7.59	-10.68	-24.88	-23.28
Y-O-Y 2008-2012	20.15	17.27	11.78	-3.18	-17.61	-26.48	48.56	26.88	21.27

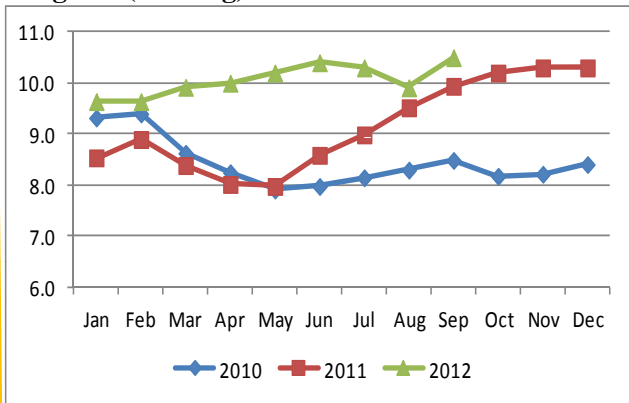
Remarks: 1) Bangkok F.O.B. Hom Malee grade 2 (new crop); 2) Price of white rice paddy moisture content 14-15% price received by farmer moisture content 14-15%; White rice 5%; 3) Bangkok F.O.B. White rice 5%; 4) Price of long grain glutinous rice paddy moisture content 14-15% received by farmer; 5) Bangkok F.O.B. long grain glutinous rice 10%; and 6) estimated as of November 2012

Source: <sup>2013/3/21</sup> "Status and trend of major agricultural products in 2013" OAE, MOAC, Table 11 page 13 Nov. 2012<sup>38</sup>  
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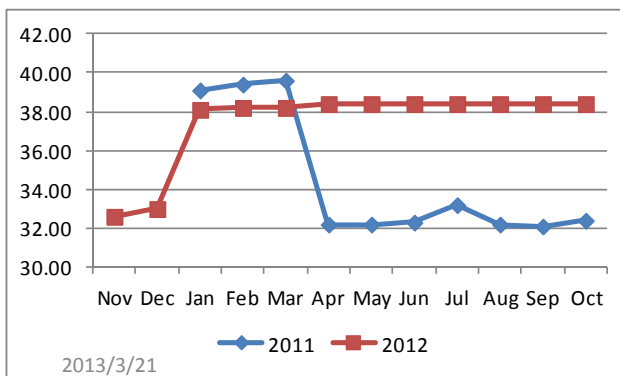
**Paddy Price, 100% Hom Mali 105, of Farmers Excluded from the Paddy-pledging Program (Baht/kg)**



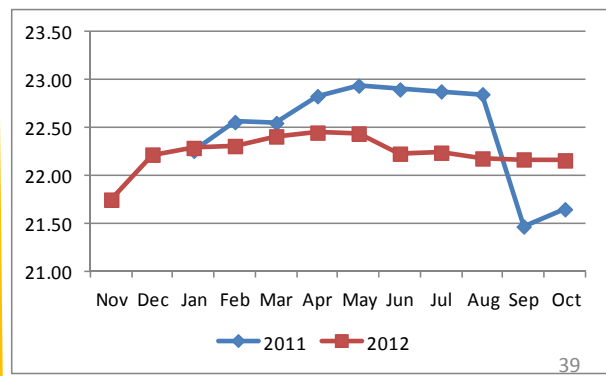
**Paddy Price, White Rice 5% Major Crop, of (1:3/5) Farmers Excluded from the Paddy-pledging Program (Baht/kg)**



**Retail Price of Hom Mali Rice, 2011–2012 (Baht/kg)**



**Retail Price of White Rice, 2011–2012 (Baht/kg)**



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**Pledging program (4/5)**

**Thai: Rice supply and utilization balance, 2008-2013  
(unit: million ton of rice)**

	2008	2009	2010	2011	2012	2013
<b>Available supply (Pro+St-1)</b>	<b>21.19</b>	<b>22.01</b>	<b>24.89</b>	<b>29.31</b>	<b>32.26</b>	<b>41.55</b>
<b>Domestic utilization</b>	<b>9.85</b>	<b>9.88</b>	<b>10.40</b>	<b>9.18</b>	<b>9.20</b>	<b>9.27</b>
<b>Export</b>	<b>10.22</b>	<b>8.62</b>	<b>8.94</b>	<b>10.71</b>	<b>6.50</b>	<b>8.00</b>
<b>Stock carried over</b>	<b>1.12</b>	<b>3.51</b>	<b>5.55</b>	<b>9.43</b>	<b>16.56</b>	<b>24.28</b>

Remarks: 1) Conversion ratio of paddy : rice = 1:0.66; 2) Available supply=production plus previous year's stock carried over ; 3) Assumed zero stock carried over in 2007

Source: Computed from "Status and trend of major agricultural products in 2013" OAE, MOAC, Table 9 page 13

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## Total estimated government debt due to pledging program during 2008-2013

	Billion baht
1) BAAC	104
1) Loan from financial institution	450
<b>Total</b>	<b>555</b>

Source: <http://www.bangkokbiznews.com/home/detail/business/business/201303/49272/>, 1 March 2013

## Thai: Future Challenges

- Loss from all pledging programs
- (WB Estimated 100 bill baht Crop year 2011-12)
- Budgetary burden
- Competitiveness
  
- Labor cost (300 baht/day)
- Irrigations (Lack of water)
- Energy

## **AEC**

- **Source of raw material or primary processed produce**
- **Opportunity of using least developed country (CLMV) as base of exports**
- **Out-sourcing**

## **Conclusion**

- ✓ Production of rice and high value crops increased
- ✓ Decreasing roles of agricultural exports that shifted to high value products
- ✓ Increasing government interventions in agriculture
- ✓ Market interventions created welfare losses, curtailing competitiveness, and escalating budgetary burdens
- ✓ AEC has no impacts on Thai food security while providing opportunity for agriculture resource allocation
- ✓ Future challenges, water and energy shortage, labor costs, competitiveness.

# Thank you

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