

TPPと日本及び世界のコメ需給変化  
—国際協力と貿易、そして食料安全保障—

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# GTAP の紹介と疑問 TPP 交渉参加の評価

**What do you get from GTAP ?  
TPP scenarios and the limits**

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# 数量経済モデルとの比較

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- 一般均衡モデル general equilibrium
- 計量経済モデル econometrics model 類似点
  - 時系列time seriesデータ(2000年から2011年)やクロスセクションデータ(2011年の福岡県)などでは、後者に該当する。
  - 様々な係数coefficient(弾力性elasticity)が使える。
- 数理計画モデルmathematical programming (線形計画法linear programmingなど)との相違点
  - 産業間の連関係数(input-output coefficient)がある。← 最大の魅力
  - プロセス係数(net profit coefficient)がない。
  - プロセスあたりの資源の必要量、技術係数(resource requirements, technical coefficient)がない。
  - 制約条件(resource constraints)がない。

# この結果

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- TPP参加シナリオによって、USAからの輸入量の少ないコメ(現状Minimum access rice米などで少ない輸入)が、USAからの非現実とも思われる輸入量に。
- 原因1: 制約量、規制controlの方法がないため。
- 原因2: 消費者の購買行動に依存するため、アーミントン代替の弾力性(armington substitution elasticity)を大きくしてシミュレーションするため、さらに、輸入量は増加し、国内産のコメの生産量が大きく減少する等、rice sectorへのダメージが大きくなる。実際に可能性は高いだろうが。

# 一般均衡モデル (general equilibrium)

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- (当該財・サービスの価格が他の財の価格の動きからも影響を受けている)
- 例: コメの需要金額
- 1.  $=f(\text{コメの価格、テレビの価格、車の価格、...家の価格})$
- 2.  $=g(\text{日本のコメの価格、USのコメの価格、ヴェトナムのコメの価格、中国のコメの価格、...})$
- 各財サービスの需要の供給が均衡(balance)している。

# 勘所、陥りやすい間違い(GTAPの結果を読むときに)

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- 金額(million US \$)であり、物量(トン)はない。
- 水準(level)と変化率(%change)、差(difference)
- 弾力性は単位がない 1%価格が下落したら。。。。
- 需要の価格弾力性はなく主にはアーミントン弾力性
- 地域(region)は国(country)の集まり、
- ショック・シナリオ(shocks scenarios)は、輸入関税率の削減(reduction)、撤廃(elimination) (従価税)  
rTMS % ad valorem rate, import tax, by source

…つづき、

- **金額**(million US\$)の**変化率**
- **= 単価**(US\$)の**変化率** + **物量**(トン)の**変化率**
- **実質GDPの変化**(qgdp: the percent change in the quantity index,
- **GDP は価値・貨幣表示での変化**(value terms changes)(million US\$)
- $GDP = QGDP * PGDP$
- $Value = Q * P$
- In % changes  $vgdp = qgdp + pgdp$
- Since pgdp changes more, and qgdp very little, it will explain most of the change in the value. **qGDPが適当**

# 等価変分

## (経済厚生 economic welfare)の尺度

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- だいたい、消費者余剰と同じ、但し、生産者余剰はない。

訂正□ **消費者余剰**は、消費行動をするときに事前に頭の中で喜んで買ってもよいと思っている金額(支払意志額 WTP: Willingness to Pay)をもっている

- 例えば、山の頂上で水が飲みたい。1本500円でも、実際は店があるならば100円を支払うことで飲める。すると、 $(300円 - 100円)$ で200円がwtp。これが飲めば飲むほど下がってくる。例えば2本目250円。すると、2本飲むときのWTPは、1本目の200円+2本目の250円で、450円が消費者余剰。

- 等価変分(EV: equivalent variation)は? 次頁に
- Q:Are you **better off** today than you were four years ago? 1980年 presidential campaign in US.
  - How can you tell that you are better off?
  - Cash value, such as \$14 billion.
- **まず1. RC:Real consumption、cost** でwelfare change \$9 gain **実質消費費用で**

|          | Initial Price | Initial Quantity | New Quantity | Cost of Initial Quantity at Initial Price | Cost of New Quantity at Initial Prices |
|----------|---------------|------------------|--------------|---|--|
| T-shirts | \$1.00        | 10               | 12           | \$10.00                                   | \$12.00                                |
| Books    | \$1.00        | 12               | 16           | \$12.00                                   | \$16.00                                |
| DVDs     | \$1.00        | 3                | 8            | \$3.00                                    | \$8.00                                 |
| Total    |               |                  |              | \$25.00                                   | \$34.00                                |



- 2. ところが、**EV**:equivalent variation(等価変分)
- ショック前(pre-)、ショック後(post-shock)の費用を比較する代わりに、基準年(base year)における、それぞれの価値額(value)を比較する。CGE model contains a utility function from different baskets of goods.
- 例:t-shirt tariff(輸入関税)の削減removal→消費者は新しいbasket of goods 財のバスケットを得るので、効用(utility)の水準をU1からU2へとあげることができる。

□ 効用(utility、満足)  $U=QA^\alpha QO^{1-\alpha}$

□  $Y$ : 支出水準、 $PA$ :リンゴの価格、 $PO$ :オレンジの価格

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□  $QA=\alpha(Y/PA)$ 、 $QO=(1-\alpha)(Y/PO)$

□ 仮定:消費のシェアは50%、基準年の支出は**100**

□  $U=QA^{0.5}QO^{0.5}$

□  $QA=0.5(100/4)=12.5$ 、 $QO=0.5(100/2)=25.0$

□ さて、Model experiment:経済ショックでリンゴ価格が2倍、でもオレンジ価格と支出はそのまま、とする。

□ “Pre”  $U^1=12.5^{0.5}25^{0.5}=17.7$  、 “Post” $U^2=25^{0.5}25^{0.5}=25$

□  $U^2=25.5=[0.5*(Y/4)]^{0.5}*[0.5*(Y/2)]^{0.5} \rightarrow Y=\mathbf{141.6}$

□  $\$141.6-\$100 = \mathbf{\$41.6}$  これが EV

□ これが、 $U^2$ レベルの効用をpreshock価格で得るために要した支出の変化

□ 参考Mary E. Burfisher、96-100頁、2011

# GTAPが示唆すること、疑問

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- TPP参加によって、①国全体で利益を追及する**効率化政策**、②コメ・セクターへのダメージ(損)を**補償**する農業予算の実現性、
- しかし、現実には、これほどのダメージを受けるのか？
  - コメ・セクターだけみても、国内のコメ・セクターの産出金額がどこまで、減少するのか？など。
  - 確かに、消費者は差別化しないとなれば、アーミントン係数を大きくすることも。しかし、ダメージが大きくなりすぎる。
- あえていえば、スタンダードGTAP、静態モデルの**限界？**しかし、土地Land, 水資源Waterなどで制約を取り入れ、よりリアルrealなモデルが**開発**されている。

## For further interests, invitation for GE analysis.

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- ▣ Videos are available ビデオを
- 1.Introduction to General Equilibrium Policy Modeling
  - ▣ David Roland-Holst in UCB, 2009
    - [http://www.ag.kagawa-u.ac.jp/kameyama/CMU\\_CGE/](http://www.ag.kagawa-u.ac.jp/kameyama/CMU_CGE/)
- 2.Preferential Trade Agreements, In the Asia-Pacific Region: Including impacts on Australia and NZ.
  - ▣ Dynamic GTAP application
  - ▣ Anna Strutt, University of Waikato, 2008.
    - [http://www.ag.kagawa-u.ac.jp/kameyama/AUS\\_5\\_Strutt/](http://www.ag.kagawa-u.ac.jp/kameyama/AUS_5_Strutt/)

# 事例2 ASEAN・FTA+TPP

## それに“with or without Japan”

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- 疑問
  - どうやって、エリアを指定する。
  - 国内のコメ生産金額の変化は？
  - どこで、生産し、どこからどこに貿易を？
  - 日本はどこから輸入？
- 注意点 **base基準状況が結果に影響する**
  - 2004年のデータベース **だけではいけない**
    - これに2004年以降のASEAN・FTAの展開とTPPをベースを加えて基準(base dataset)を作成
    - これにJapanを参加させた
  - これにより **with(参加) と without Japan(参加しない)**の差を効果として求める

# Region group (地域: 国のグループ)

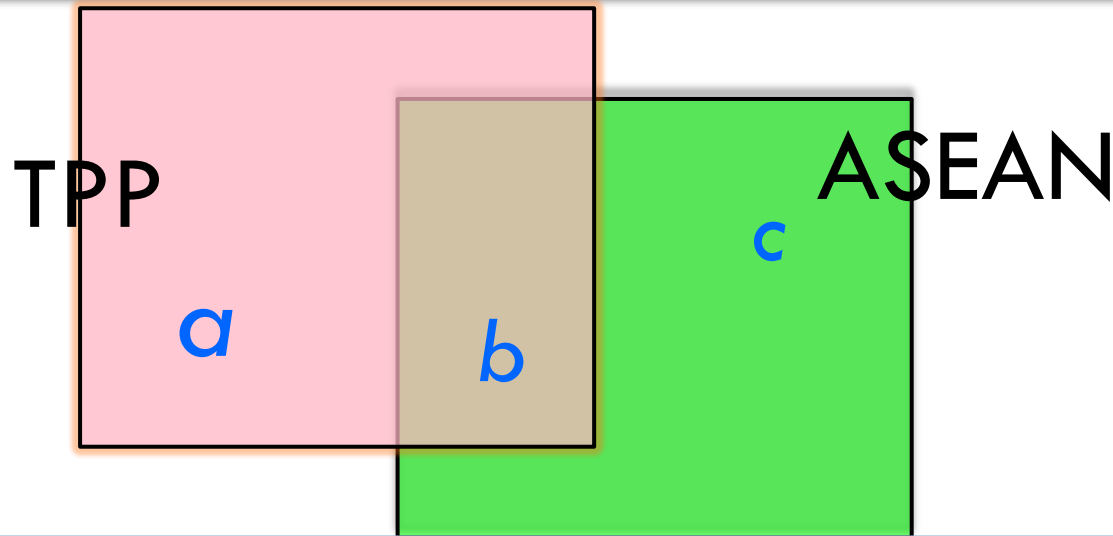
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- **TPP** # TPP regions “a+b”
  - Australia, New Zealand, Singapore, USA, Chile, Peru, Vietnam, Malaysia
- **ASEAN** # ASEAN regions “b+c”
  - Indonesia, Singapore, Thailand, the PHL, Malaysia, Vietnam, MMR, LAO, KHM
- **TPPNOTASEAN** # TPP but not ASEAN regions
  - Australia, New Zealand, USA, Chile, Peru “a”
- **TPPANDASEAN** # TPP and ASEAN regions “b”
  - Malaysia, Singapore, Vietnam

■ 重複させないように注意

# shock 輸入関税削減

Import tax=0 in TPP countries.



**source**

**destination**

|                  |   |                   |
|------------------|---|-------------------|
| (a+b) TPP        | → | TPPnoASEAN (c)    |
| (c) TPPnoASEAN   | → | TPP and ASEAN (b) |
| (b) TPPand ASEAN | → | TPPandASEAN (b)   |

これでも逃すところがあった。そこで、ひとつひとつ。→次

# rTMS(rate of tax for imported goods) の現状 と 削減箇所 (例:加工食品) これを全産業部門について削減

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| rTMS          | 1 Austr<br>alia | 2 NewZ<br>ealand | 3 Singa<br>pore | 4 USA | 5 Chile | 6 Peru | 7 Vietn<br>am | 8 Jap<br>an | 9 China | 10 Korea | 11 Canad<br>a | 12 Mexic<br>o | 13 Malay<br>sia | 14 KHM | 15 IDN | 16 LAO | 17 MMR | 18 PHL | 19 THA | 20 Latin<br>Amer | 21 EU_25 | 22 Resto<br>fWorld |
|---------------|-----------------|------------------|-----------------|-------|---------|--------|---------------|-------------|---------|----------|---------------|---------------|-----------------|--------|--------|--------|--------|--------|--------|------------------|----------|--------------------|
| 1 Australia   | 0               | 2                | 0               | 7     | 6       | 19     | 15            | 39          | 8       | 53       | 8             | 35            | 10              | 33     | 9      | 29     | 5      | 4      | 19     | 17               | 11       | 16                 |
| 2 New Zealand | 0               | 0                | 0               | 16    | 6       | 18     | 19            | 24          | 13      | 39       | 88            | 46            | 2               | 17     | 5      | 10     | 3      | 4      | 14     | 18               | 29       | 14                 |
| 3 Singapore   | 1               | 1                | 0               | 3     | 6       | 19     | 58            | 21          | 9       | 37       | 8             | 23            | 42              | 25     | 17     | 38     | 13     | 4      | 22     | 12               | 11       | 21                 |
| 4 USA         | 3               | 16               | 0               | 0     | 2       | 11     | 23            | 20          | 5       | 38       | 11            | 0             | 29              | 17     | 2      | 18     | 6      | 9      | 26     | 14               | 10       | 23                 |
| 5 Chile       | 1               | 2                | 0               | 1     | 0       | 6      | 15            | 5           | 8       | 10       | 0             | 0             | 37              | 48     | 5      | 0      | 0      | 5      | 53     | 7                | 7        | 16                 |
| 6 Peru        | 2               | 4                | 0               | 0     | 3       | 0      | 10            | 2           | 4       | 11       | 1             | 14            | 4               | 0      | 0      | 0      | 0      | 3      | 26     | 14               | 1        | 7                  |
| 7 Vietnam     | 0               | 1                | 0               | 1     | 6       | 19     | 0             | 10          | 21      | 17       | 1             | 27            | 3               | 13     | 15     | 15     | 9      | 47     | 18     | 15               | 13       | 12                 |
| 8 Japan       | 1               | 4                | 0               | 6     | 6       | 12     | 29            | 0           | 15      | 39       | 8             | 19            | 39              | 7      | 14     | 30     | 10     | 7      | 47     | 18               | 13       | 21                 |
| 9 China       | 2               | 5                | 1               | 4     | 6       | 14     | 63            | 17          | 11      | 45       | 5             | 21            | 32              | 27     | 7      | 35     | 22     | 8      | 44     | 18               | 16       | 20                 |
| 10 Korea      | 2               | 3                | 2               | 6     | 6       | 13     | 31            | 16          | 10      | 0        | 6             | 21            | 25              | 19     | 17     | 30     | 7      | 15     | 45     | 19               | 11       | 39                 |
| 11 Canada     | 2               | 2                | 0               | 5     | 6       | 15     | 25            | 7           | 6       | 44       | 0             | 1             | 2               | 8      | 5      | 0      | 0      | 6      | 45     | 15               | 9        | 10                 |
| 12 Mexico     | 1               | 18               | 12              | 3     | 0       | 9      | 51            | 8           | 11      | 24       | 3             | 0             | 35              | 26     | 16     | 0      | 0      | 6      | 54     | 10               | 5        | 91                 |
| 13 Malaysia   | 1               | 1                | 0               | 1     | 6       | 12     | 18            | 4           | 2       | 8        | 5             | 21            | 0               | 11     | 8      | 12     | 2      | 3      | 45     | 17               | 8        | 29                 |
| 14 KHM        | 0               | 0                | 0               | 0     | 0       | 0      | 5             | 1           | 3       | 29       | 0             | 0             | 96              | 0      | 0      | 24     | 0      | 1      | 11     | 1                | 32       | 9                  |
| 15 IDN        | 1               | 3                | 0               | 2     | 6       | 11     | 9             | 8           | 5       | 9        | 2             | 25            | 22              | 7      | 0      | 0      | 5      | 4      | 12     | 14               | 8        | 53                 |
| 16 LAO        | 0               | 0                | 0               | 1     | 0       | 0      | 27            | 4           | 21      | 1        | 0             | 0             | 139             | 7      | 0      | 0      | 0      | 0      | 10     | 0                | 14       | 2                  |
| 17 MMR        | 0               | 0                | 0               | 2     | 0       | 0      | 9             | 0           | 9       | 29       | 0             | 17            | 3               | 5      | 5      | 0      | 0      | 3      | 5      | 0                | 18       | 8                  |
| 18 PHL        | 2               | 2                | 0               | 2     | 6       | 11     | 45            | 13          | 11      | 17       | 4             | 21            | 12              | 17     | 1      | 24     | 10     | 0      | 47     | 13               | 13       | 14                 |
| 19 THA        | 2               | 3                | 0               | 3     | 6       | 18     | 9             | 42          | 22      | 93       | 2             | 29            | 3               | 27     | 28     | 11     | 5      | 14     | 0      | 20               | 34       | 19                 |
| 20 LatinAmer  | 2               | 13               | 0               | 10    | 1       | 5      | 1             | 15          | 2       | 27       | 8             | 9             | 4               | 4      | 1      | 0      | 8      | 3      | 25     | 6                | 10       | 21                 |
| 21 EU_25      | 2               | 11               | 2               | 5     | 2       | 14     | 20            | 20          | 12      | 46       | 18            | 16            | 41              | 15     | 12     | 15     | 8      | 6      | 21     | 18               | 0        | 20                 |



# コメの現状と 削減箇所 rTMS(従価税率)

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| rTMS          | 1 Australia | 2 New Zealand | 3 Singapore | 4 USA | 5 Chile | 6 Peru | 7 Vietnam | 8 Japan | 9 China | 10 Korea | 11 Canada | 12 Mexico | 13 Malaysia | 14 KHM | 15 IDN | 16 LAO | 17 MMR | 18 PHL | 19 THA | 20 Latin America | 21 EU_25 | 22 Rest of World |    |
|---------------|-------------|---------------|-------------|-------|---------|--------|-----------|---------|---------|----------|-----------|-----------|-------------|--------|--------|--------|--------|--------|--------|------------------|----------|------------------|----|
| 1 Australia   | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 417     | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 51               | 2  |
| 2 NZ          | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 0                | 0  |
| 3 Singapore   | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 7      | 14     | 0      | 0      | 0      | 0      | 0                | 0        | 62               | 0  |
| 4 USA         | 0           | 0             | 0           | 0     | 5       | 17     | 0         | 359     | 320     | 450      | 0         | 0         | 0           | 4      | 15     | 0      | 0      | 0      | 0      | 52               | 16       | 55               | 13 |
| 5 Chile       | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 0                | 0  |
| 6 Peru        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 70               | 0  |
| 7 Vietnam     | 0           | 0             | 0           | 5     | 0       | 0      | 0         | 576     | 62      | 0        | 0         | 0         | 0           | 6      | 17     | 0      | 0      | 0      | 0      | 0                | 0        | 70               | 10 |
| 8 Japan       | 0           | 0             | 0           | 4     | 0       | 0      | 30        | 0       | 210     | 450      | 0         | 0         | 0           | 7      | 12     | 5      | 0      | 0      | 52     | 0                | 81       | 3                |    |
| 9 China       | 0           | 0             | 0           | 0     | 0       | 0      | 20        | 520     | 0       | 450      | 0         | 0         | 0           | 0      | 12     | 0      | 0      | 15     | 0      | 8                | 84       | 9                |    |
| 10 Korea      | 0           | 0             | 0           | 5     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 55               | 0  |
| 11 Canada     | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 50     | 0      | 25               | 70       | 10               |    |
| 12 Mexico     | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 0                | 3  |
| 13 Malaysia   | 0           | 0             | 0           | 3     | 0       | 0      | 0         | 853     | 0       | 0        | 0         | 0         | 0           | 0      | 8      | 0      | 0      | 0      | 0      | 0                | 0        | 0                | 5  |
| 14 KHM        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 12               | 0  |
| 15 IDN        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 100              | 10 |
| 16 LAO        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 39      | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 52     | 0                | 14       | 0                |    |
| 17 MMR        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 0                | 21 |
| 18 PHL        | 0           | 0             | 0           | 0     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 0        | 97               | 0  |
| 19 THA        | 0           | 0             | 0           | 5     | 6       | 0      | 0         | 524     | 368     | 450      | 0         | 0         | 0           | 0      | 19     | 5      | 0      | 0      | 0      | 20               | 81       | 12               |    |
| 20 Latin Amer | 0           | 0             | 0           | 1     | 2       | 14     | 0         | 188     | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 0      | 0                | 1        | 71               | 5  |
| 21 EU_25      | 0           | 0             | 0           | 4     | 0       | 0      | 0         | 0       | 0       | 0        | 0         | 0         | 0           | 0      | 0      | 0      | 0      | 0      | 42     | 11               | 0        | 9                |    |
| 22 ROW        | 0           | 0             | 0           | 4     | 0       | 0      | 0         | 283     | 352     | 13       | 0         | 0         | 0           | 0      | 7      | 0      | 0      | 22     | 1      | 4                | 58       | 6                |    |
| Total         | 0           | 0             | 0           | 30    | 13      | 32     | 50        | 3303    | 1769    | 1813     | 0         | 0         | 0           | 24     | 104    | 10     | 0      | 87     | 198    | 84               | 1032     | 118              |    |

# 事例2: ASEAN・FTA+TPP+Japan

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| 実質GDPの<br>変化率 (%) |             |
|-------------------|-------------|
| Australia         | 0.03        |
| New Zealand       | 0.03        |
| Singapore         | -0.01       |
| USA               | -0.01       |
| Chile             | 0           |
| Peru              | 0           |
| Vietnam           | -0.19       |
| <b>Japan</b>      | <b>0.16</b> |
| China             | -0.01       |
| Korea             | -0.02       |
| Canada            | -0.01       |
| Mexico            | -0.01       |
| Malaysia          | 0.34        |
| KHM               | -0.01       |
| IDN               | -0.01       |
| LAO               | -0.02       |
| MMR               | 0.01        |
| PHL               | -0.02       |
| THA               | -0.04       |
| Latin America     | -0.01       |
| EU_25             | -0.01       |
| Rest of World     | -0.01       |

| E V<br>(等価変分) | 資源配分<br>の効率性 | 交易条件         | 投資・貯蓄       | 合計<br>(million \$) |
|---------------|--------------|--------------|-------------|--------------------|
| Australia     | 184          | 830          | 38          | 1,052              |
| New Zealand   | 33           | 37           | -2          | 67                 |
| Singapore     | -11          | -167         | -1          | -179               |
| USA           | -703         | 3255         | 522         | 3,075              |
| Chile         | 3            | 122          | -13         | 112                |
| Peru          | 3            | -22          | 1           | -17                |
| Vietnam       | -42          | 343          | 22          | 322                |
| <b>Japan</b>  | <b>7,320</b> | <b>1,775</b> | <b>-606</b> | <b>8,489</b>       |
| China         | -151         | -1,525       | -65         | -1,741             |
| Korea         | -130         | -485         | 9           | -606               |
| Canada        | -90          | -774         | -16         | -880               |
| Mexico        | -67          | -424         | -15         | -507               |
| Malaysia      | 428          | 55           | 525         | 1,008              |
| KHM           | -1           | -1           | 0           | -1                 |
| IDN           | -28          | -171         | 5           | -194               |
| LAO           | 0            | -1           | -1          | -2                 |
| MMR           | 0            | -1           | -1          | -1                 |
| PHL           | 1            | -107         | -1          | -106               |
| THA           | -24          | -593         | 32          | -585               |
| Latin America | -130         | -334         | -6          | -470               |
| EU_25         | -858         | -1,294       | -313        | -2,464             |
| Rest of World | -252         | -535         | -114        | -902               |
| Total         | 5,484        | -16          | 2           | 5,471              |

1兆円  
ほど

## 実質GDPの変化率(%)とショック前後の変化(金額)

| qgdp        | (変化率<br>(%)) | Pre<br>ショック前<br>(million US \$) | Post<br>ショック後<br>(million US \$) | 変化金額<br>Million US \$ |
|-------------|--------------|---------------------------------|----------------------------------|-----------------------|
| Australia   | 0.03         | 641,355                         | 641,538                          | 183.63                |
| NewZealand  | 0.03         | 97,554                          | 97,586                           | 32.69                 |
| Singapore   | -0.01        | 108,538                         | 108,527                          | -11.3                 |
| USA         | -0.01        | 11,672,511                      | 11,671,808                       | -703                  |
| Chile       | 0            | 89,797                          | 89,800                           | 2.73                  |
| Peru        | 0            | 67,797                          | 67,800                           | 3.02                  |
| Vietnam     | -0.09        | 44,906                          | 44,864                           | -41.7                 |
| Japan       | <b>0.16</b>  | 4,652,289                       | 4,659,607                        | <b>7,318</b>          |
| China       | -0.01        | 2,138,613                       | 2,138,462                        | -151.3                |
| Korea       | -0.02        | 675,672                         | 675,542                          | -130.1                |
| Canada      | -0.01        | 977,241                         | 977,151                          | -89.56                |
| Mexico      | -0.01        | 681,837                         | 681,770                          | -67                   |
| Malaysia    | 0.37         | 115,157                         | 115,585                          | 428.02                |
| KHM         | -0.02        | 5,340                           | 5,339                            | -1.08                 |
| IDN         | -0.01        | 257,551                         | 257,523                          | -27.98                |
| LAO         | -0.02        | 2,396                           | 2,395                            | -0.37                 |
| MMR         | 0            | 7,655                           | 7,655                            | 0.29                  |
| PHL         | 0            | 85,480                          | 85,481                           | 1.13                  |
| THA         | -0.01        | 165,590                         | 165,565                          | -24.17                |
| LatinAmer   | -0.01        | 1,314,828                       | 1,314,698                        | -129.6                |
| EU_25       | -0.01        | 12,785,947                      | 12,785,089                       | -858                  |
| RestofWorld | -0.01        | 4,364,678                       | 4,364,426                        | -252.5                |

19

Real GDP  
0.16% 増加  
8780億円  
(1ドル=120円)  
EVは1兆円ほど

## 事例2: Difference of QO(rice), コメの国内生産金額の変化(million US\$)

20

| DQO     | 1 Australia | 2 New Zealand | 3 Singapore | 4 USA   | 5 Chile | 6 Peru | 7 Vietnam | 8 Japan | 9 China | 10 Korea | 11 Canada | 12 Mexico | 13 Malaysia | 14 KHM | 15 IDN | 16 LAO | 17 MMR | 18 PHL | 19 THA | 20 Latin Amer | 21 EU_25 | 22 Rest of World | Total |
|---------|-------------|---------------|-------------|---------|---------|--------|-----------|---------|---------|----------|-----------|-----------|-------------|--------|--------|--------|--------|--------|--------|---------------|----------|------------------|-------|
| コメ      | 5           | 0             | 0           | 1,121   | 1       | -0     | 637       | -5,371  | -7      | 11       | 2         | 8         | 424         | -0     | -6     | 0      | -2     | 4      | 22     | 118           | 34       | 96               | -2    |
| コムギ     | -100        | 1             | -0          | -42     | 15      | 7      | -0        | -368    | 28      | 1        | -61       | 9         | -5          | -0     | 0      | 0      | 0      | 4      | 0      | 62            | 105      | 251              |       |
| 穀物      | 402         | -6            | -4          | 1,017   | -11     | 6      | -269      | -1,964  | -159    | -8       | -19       | 25        | -203        | 4      | 13     | 1      | 1      | 18     | 7      | -2            | 136      | 153              |       |
| 野菜果物    | 55          | 25            | 2           | -280    | -61     | 8      | -183      | 176     | -129    | 10       | 79        | 74        | -165        | 0      | 10     | 0      | 1      | -33    | 39     | 109           | 173      | 57               |       |
| 畜産      | 422         | 63            | 3           | 4,352   | 249     | -1     | -50       | -4,289  | -417    | 6        | -72       | -28       | -229        | -1     | 23     | 0      | 1      | 1      | -138   | -225          | -187     | -3               |       |
| 肉製品     | 1,167       | -63           | 1           | 12,139  | 430     | 1      | -77       | 10,568  | -727    | 13       | -489      | -168      | -87         | -0     | 5      | 0      | 0      | 2      | -291   | -465          | -1,207   | 16               |       |
| 魚       | 7           | 15            | 0           | 10      | 1       | -0     | -34       | -14     | -38     | -5       | 3         | -3        | -12         | -1     | -3     | -0     | -0     | -1     | -9     | 1             | -4       | -10              |       |
| 加工食品    | 2,928       | 408           | 288         | 4,575   | -3      | -21    | -948      | -224    | -1,274  | -258     | -122      | -237      | -1,265      | -3     | -79    | -1     | -12    | 30     | -113   | 32            | -383     | -449             | 2     |
| 天然資源    | -339        | -13           | 0           | -329    | -55     | 9      | -132      | -68     | 210     | 11       | 71        | 1         | -67         | -0     | 75     | -1     | 2      | 4      | 21     | 44            | 59       | 161              |       |
| 繊維製品    | -263        | -15           | -37         | -1,253  | -6      | 9      | 1,449     | 2,555   | -1,079  | -362     | 23        | 38        | 84          | 5      | -54    | 4      | 2      | -13    | 278    | 2             | -392     | -611             |       |
| 軽工業     | -2,345      | -386          | -518        | -8,780  | -133    | -55    | -343      | 21,303  | -940    | -590     | -160      | -295      | -216        | -12    | -349   | -10    | -3     | -68    | -519   | -40           | -2,358   | -773             | 2     |
| 重工業     | -2,313      | -54           | -92         | -11,520 | -184    | 45     | -419      | 3,084   | 4,522   | 1,290    | 813       | 301       | 984         | -4     | 396    | 1      | 0      | 138    | 1,271  | 522           | 2,910    | 228              | 1     |
| 建設      | 635         | 57            | -22         | 1,194   | 4       | -4     | 459       | 1,865   | -526    | -251     | -359      | -28       | 319         | -3     | -98    | -2     | -1     | -22    | -553   | -331          | -1,452   | -627             |       |
| 交通      | -25         | 2             | 181         | -497    | -26     | 5      | -44       | 524     | 725     | 219      | 58        | 23        | 49          | 0      | -3     | 0      | 1      | -2     | 98     | 65            | 1,199    | 214              | 2     |
| ほかのサービス | -313        | 13            | 127         | -479    | -11     | 6      | -156      | -334    | 118     | 4        | 145       | 3         | -66         | -0     | 23     | 1      | 1      | -20    | 90     | 52            | 474      | 243              |       |
| 資本財     | 1,407       | 135           | -85         | 2,753   | 24      | -7     | 929       | 3,381   | -1,083  | -436     | -746      | -878      | 979         | -5     | -157   | -4     | -1     | -56    | -1,321 | -613          | -4,326   | -1,368           | -1    |

| D QO #1 | Aus<br>tralia | New<br>Zealand | Singa<br>Pore | USA     | Chile | Peru | Vietnam | 8 Japan | China  | Korea |
|---------|---------------|----------------|---------------|---------|-------|------|---------|---------|--------|-------|
| コメ      | 5             | 0              | 0             | 1,121   | 1     | -0   | 637     | -5,371  | -7     | 11    |
| コムギ     | -100          | 1              | -0            | -42     | 15    | 7    | -0      | -368    | 28     | 1     |
| 穀物      | 402           | -6             | -4            | 1,017   | -11   | 6    | -269    | -1,964  | -159   | -8    |
| 野菜果物    | 55            | 25             | 2             | -280    | -61   | 8    | -183    | 176     | -129   | 10    |
| 畜産      | 422           | 63             | 3             | 4,352   | 249   | -1   | -50     | -4,289  | -417   | 6     |
| 肉製品     | 1,167         | -63            | 1             | 12,139  | 430   | 1    | -77     | -10,568 | -727   | 13    |
| 魚       | 7             | 15             | 0             | 10      | 1     | -0   | -34     | -14     | -38    | -5    |
| 加工食品    | 2,928         | 408            | 288           | 4,575   | -3    | -21  | -948    | -224    | -1,274 | -258  |
| 天然資源    | -339          | -13            | 0             | -329    | -55   | 9    | -132    | -68     | 210    | 11    |
| 繊維製品    | -263          | -15            | -37           | -1,253  | -6    | 9    | 1,449   | 2,555   | -1,079 | -362  |
| 軽工業     | -2,345        | -386           | -518          | -8,780  | -133  | -55  | -343    | 21,303  | -940   | -590  |
| 重工業     | -2,313        | -54            | -92           | -11,520 | -184  | 45   | -419    | 3,084   | 4,522  | 1,290 |
| 建設      | 635           | 57             | -22           | 1,194   | 4     | -4   | 459     | 1,865   | -526   | -251  |
| 交通      | -25           | 2              | 181           | -497    | -26   | 5    | -44     | 524     | 725    | 219   |
| ほかのサービス | -313          | 13             | 127           | -479    | -11   | 6    | -156    | -334    | 118    | 4     |
| 資本財     | 1,407         | 135            | -85           | 2,753   | 24    | -7   | 929     | 3,381   | -1,083 | -436  |

| D QO #2 | Canada | Mexico | Malaysia | KHM | Indonesia | LAO | MMR | PHL | THA   | Latin America | EU_25  | Rest of World | Total  |
|---------|--------|--------|----------|-----|-----------|-----|-----|-----|-------|---------------|--------|---------------|--------|
| コメ      | 2      | 8      | 424      | -0  | -6        | 0   | -2  | 4   | 22    | 118           | 34     | 96            | -2,903 |
| コムギ     | -61    | 9      | -5       | -0  | 0         | 0   | 0   | 4   | 0     | 62            | 105    | 251           | -93    |
| 22 穀物   | -19    | 25     | -203     | 4   | 13        | 1   | 1   | 18  | 7     | -2            | 136    | 153           | -865   |
| 野菜果物    | 79     | 74     | -165     | 0   | 10        | 0   | 1   | -33 | 39    | 109           | 173    | 57            | -34    |
| 畜産      | -72    | -28    | -229     | -1  | 23        | 0   | 1   | 1   | -138  | -225          | -187   | -3            | -522   |
| 肉製品     | -489   | -168   | -87      | -0  | 5         | 0   | 0   | 2   | -291  | -465          | -1,207 | 16            | -368   |
| 魚       | 3      | -3     | -12      | -1  | -3        | -0  | -0  | -1  | -9    | 1             | -4     | -10           | -97    |
| 加工食品    | -122   | -237   | -1,265   | -3  | -79       | -1  | -12 | 30  | -113  | 32            | -383   | -449          | 2,870  |
| 天然資源    | 71     | 1      | -67      | -0  | 75        | -1  | 2   | 4   | 21    | 44            | 59     | 161           | -336   |
| 繊維製品    | 23     | 38     | 84       | 5   | -54       | 4   | 2   | -13 | 278   | 2             | -392   | -611          | 365    |
| 軽工業     | -160   | -295   | -216     | -12 | -349      | -10 | -3  | -68 | -519  | -40           | -2,358 | -773          | 2,411  |
| 重工業     | 813    | 301    | 984      | -4  | 396       | 1   | 0   | 138 | 1,271 | 522           | 2,910  | 228           | 1,918  |
| 建設      | -359   | -28    | 319      | -3  | -98       | -2  | -1  | -22 | -553  | -331          | -1,452 | -627          | 253    |
| 交通      | 58     | 23     | 49       | 0   | -3        | 0   | 1   | -2  | 98    | 65            | 1,199  | 214           | 2,767  |
| ほかサービス  | 145    | 3      | -66      | -0  | 23        | 1   | 1   | -20 | 90    | 52            | 474    | 243           | -78    |
| 資本財     | -746   | -878   | 979      | -5  | -157      | -4  | -1  | -56 | -     | -613          | -4,326 | -1,368        | -1,479 |
|         |        |        |          |     |           |     |     |     | 1,321 |               |        |               |        |

# コメの輸出exp. value 金額の変化(% change)

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TO →

| qxsl[Rice**] | Australia | NewZealand | Singapore | USA  | Chile | Peru | Vietnam | Japan | China          | Korea | Canada | Mexico | Malaysia | KHM   | IDN  | LAO  | MMR  | PHL  | THA  | LatinAmer | EU_25 | RestofWorld |      |
|--------------|-----------|------------|-----------|------|-------|------|---------|-------|----------------|-------|--------|--------|----------|-------|------|------|------|------|------|-----------|-------|-------------|------|
| Australia    |           | 9          | -5        | -13  | 39    | 28   | 14      | 91    | -100           | 9     | -13    | 33     | 100      | 2,235 | 27   | -13  | -42  | -8   | -12  | -22       | 0     | -17         | -11  |
| New Zealand  |           | 38         | 18        | 8    | 76    | 63   | 46      | 143   | -100           | 35    | 11     | 65     | 154      | 2,869 | 62   | 10   | -27  | 17   | 12   | -1        | 27    | 3           | 11   |
| Singapore    |           | 28         | 9         | -0   | 63    | 51   | 35      | 125   | -100           | 25    | 3      | 52     | 135      | 2,647 | 51   | 3    | -32  | 8    | 4    | -9        | 18    | -3          | 4    |
| <b>USA</b>   |           | -47        | -55       | -59  | -38   | -38  | -44     | -15   | <b>13,741</b>  | -48   | -57    | -42    | -8       | 1,040 | -38  | -58  | -74  | -59  | -61  | -62       | -51   | -60         | -58  |
| Chile        |           | 22         | 4         | -5   | 56    | 44   | 29      | 115   | -100           | 20    | -2     | 46     | 125      | 2,524 | 43   | -2   | -35  | 3    | -1   | -13       | 13    | -9          | -2   |
| Peru         |           | 44         | 23        | 12   | 84    | 69   | 51      | 153   | -100           | 41    | 16     | 71     | 164      | 2,988 | 68   | 15   | -24  | 21   | 17   | 3         | 32    | 8           | 15   |
| Vietnam      |           | -84        | -86       | -87  | -79   | -81  | -83     | -71   | <b>221,108</b> | -84   | -87    | -80    | -70      | 305   | -77  | -85  | -91  | -86  | -87  | -88       | -85   | -87         | -85  |
| Japan        |           | 190        | 134       | 114  | 397   | 242  | 206     | 6,707 | -100           | 168   | 120    | 226    | 434      | 6,144 | 220  | 119  | 45   | 145  | 136  | 96        | 168   | 105         | 119  |
| China        |           | 52         | 30        | 19   | 94    | 79   | 60      | 166   | -100           | 49    | 22     | 81     | 179      | 3,160 | 77   | 21   | -19  | 28   | 23   | 9         | 40    | 14          | 21   |
| Korea        |           | 45         | 24        | 13   | 85    | 71   | 52      | 155   | -100           | 42    | 17     | 73     | 166      | 3,010 | 69   | 16   | -23  | 22   | 17   | 4         | 33    | 8           | 16   |
| Canada       |           | 39         | 19        | 9    | 78    | 64   | 47      | 145   | -100           | 36    | 12     | 66     | 156      | 2,893 | 63   | 11   | -26  | 18   | 13   | -0        | 29    | 5           | 12   |
| Mexico       |           | -0         | -15       | -22  | 28    | 18   | 5       | 76    | -100           | -2    | -20    | 19     | 84       | 2,048 | 17   | -20  | -47  | -16  | -19  | -29       | -8    | -25         | -18  |
| Malaysia     |           | -100       | -100      | -100 | -100  | -100 | -100    | -100  | <b>52,357</b>  | -100  | -100   | -100   | -100     | -97   | -100 | -100 | -100 | -100 | -100 | -100      | -100  | -100        | -100 |
| KHM          |           | 34         | 15        | 5    | 71    | 58   | 41      | 136   | -100           | 31    | 8      | 60     | 147      | 2,781 | 57   | 7    | -29  | 13   | 9    | -4        | 24    | 0           | 7    |
| IDN          |           | 48         | 27        | 16   | 89    | 75   | 56      | 161   | -100           | 45    | 19     | 77     | 173      | 3,083 | 73   | 18   | -21  | 25   | 20   | 6         | 37    | 11          | 19   |
| LAO          |           | 42         | 22        | 11   | 82    | 68   | 50      | 151   | -100           | 40    | 15     | 70     | 162      | 2,965 | 67   | 14   | -24  | 20   | 16   | 2         | 31    | 7           | 14   |
| MMR          |           | 51         | 30        | 18   | 93    | 79   | 60      | 166   | -100           | 48    | 22     | 81     | 179      | 3,156 | 77   | 21   | -20  | 28   | 23   | 8         | 40    | 13          | 21   |
| PHL          |           | 49         | 27        | 16   | 90    | 75   | 57      | 162   | -100           | 46    | 20     | 77     | 174      | 3,097 | 74   | 19   | -21  | 26   | 21   | 6         | 37    | 11          | 19   |
| THA          |           | 53         | 31        | 20   | 96    | 81   | 62      | 170   | -100           | 50    | 23     | 83     | 183      | 3,191 | 80   | 22   | -19  | 30   | 25   | 10        | 41    | 15          | 23   |
| LatinAmer    |           | 43         | 22        | 11   | 82    | 68   | 51      | 151   | -100           | 40    | 15     | 70     | 163      | 2,965 | 67   | 14   | -24  | 20   | 16   | 2         | 32    | 7           | 15   |
| EU_25        |           | 44         | 23        | 12   | 84    | 70   | 52      | 153   | -100           | 41    | 16     | 72     | 165      | 2,992 | 68   | 15   | -24  | 22   | 17   | 3         | 33    | 8           | 15   |
| RestofWorld  |           | 43         | 23        | 12   | 83    | 69   | 51      | 152   | -100           | 41    | 16     | 71     | 164      | 2,985 | 68   | 15   | -24  | 21   | 16   | 3         | 32    | 8           | 15   |

FROM ↓

# Pre(Shock 前)のコメ輸出金額 (million us\$)

TO →

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FROM ↓

| qxs[Rice**] | Australia | NewZealand | Singapore | USA  | Chile | Peru | Vietnam | Japan | China | Korea | Canada | Mexico | Malaysia | KHM | IDN | LAO | MMR | PHL | THA | LatinAmer | EU_25 | RestofWorld |       |
|-------------|-----------|------------|-----------|------|-------|------|---------|-------|-------|-------|--------|--------|----------|-----|-----|-----|-----|-----|-----|-----------|-------|-------------|-------|
| Australia   | 0         | 0          | 0.1       | 0    | 0     | 0    | 0       | 0     | 0     | 6.1   | 0      | 0.2    | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 1           | 7.2   |
| NewZealand  | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Singapore   | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0.1 | 0   | 0   | 0   | 0         | 0     | 0           | 0.5   |
| USA         | 0.1       | 0          | 0.1       | 0    | 0.4   | 0.7  | 0       | 9.7   | 23.8  | 27.2  | 9.2    | 135.5  | 0        | 1.1 | 6.3 | 0   | 0   | 0   | 0.3 | 161.1     | 49.2  | 90.9        |       |
| Chile       | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Peru        | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Vietnam     | 0.1       | 0          | 0.1       | 1    | 0     | 0    | 0       | 0.4   | 0.3   | 0.1   | 0.1    | 0.1    | 0.1      | 0.1 | 0.1 | 0.5 | 0   | 0   | 0   | 0         | 0.1   | 3.1         | 39.1  |
| Japan       | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0.1   | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 1.6   |
| China       | 0.2       | 0.1        | 0.2       | 1.1  | 0     | 0    | 13.3    | 1.5   | 0.3   | 31.3  | 0.5    | 0.1    | 0        | 0   | 1.8 | 0   | 0   | 0   | 0   | 0         | 0.3   | 4.3         | 16.1  |
| Korea       | 0         | 0          | 0         | 0.1  | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Canada      | 0         | 0          | 0         | 1    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.2         | 0     |
| Mexico      | 0         | 0          | 0         | 0.2  | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Malaysia    | 0.3       | 0.1        | 0.3       | 2.5  | 0     | 0    | 0       | 0.9   | 0.8   | 0.3   | 0.4    | 0.2    | 0        | 0   | 0.3 | 0   | 0   | 0   | 0   | 0         | 0.3   | 6.7         | 2.1   |
| KHM         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| IDN         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.1         | 0     |
| LAO         | 0         | 0          | 0         | 0.3  | 0     | 0    | 0       | 0     | 0.1   | 0.1   | 0      | 0.1    | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 1.2       | 0     | 1           | 0.2   |
| MMR         | 0         | 0          | 0         | 0.3  | 0     | 0    | 0       | 0     | 0.1   | 0.1   | 0      | 0.1    | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.9         | 5.8   |
| PHL         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| THA         | 0         | 0.1        | 0.6       | 1.1  | 0     | 0    | 0       | 0     | 2.5   | 10    | 0.3    | 0      | 0.3      | 0   | 6.9 | 0   | 0   | 0   | 0   | 0         | 0.5   | 32.7        | 107.1 |
| LatinAmer   | 0.2       | 0          | 0         | 0.6  | 0     | 0.1  | 0       | 0     | 0.1   | 0.2   | 0.2    | 0.1    | 1        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 114.1 | 16.7        | 1.7   |
| EU_25       | 0         | 0          | 0         | 0.3  | 0     | 0    | 0       | 0     | 0     | 0.1   | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0.5   | 193.4       | 11.4  |
| RestofWorld | 0.6       | 0.1        | 2.5       | 18.8 | 0     | 0    | 0       | 1.4   | 3.6   | 0.5   | 3.2    | 0.3    | 0.2      | 0   | 0.1 | 0   | 0   | 0.1 | 0   | 0.7       | 159.4 | 110.5       |       |



# Post(Shock後)のコメ輸出金額(million us\$)

TO →

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FROM



| qxs[Rice**] | Australia | NewZealand | Singapore | USA  | Chile | Peru | Vietnam | Japan | China | Korea | Canada | Mexico | Malaysia | KHM | IDN | LAO | MMR | PHL | THA | LatinAmer | EU_25 | RestofWorld |       |
|-------------|-----------|------------|-----------|------|-------|------|---------|-------|-------|-------|--------|--------|----------|-----|-----|-----|-----|-----|-----|-----------|-------|-------------|-------|
| Australia   | 0         | 0          | 0.1       | 0    | 0     | 0    | 0       | 0     | 6.7   | 0     | 0.3    | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.8         | 6.5   |
| NewZealand  | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Singapore   | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0.1 | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0.5   |
| USA         | 0.1       | 0          | 0         | 0    | 0.3   | 0.4  | 0       | 1,341 | 12.4  | 11.6  | 5.3    | 125.3  | 0.1      | 0.7 | 2.7 | 0   | 0   | 0   | 0.1 | 78.7      | 19.5  | 38.6        |       |
| Chile       | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Peru        | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Vietnam     | 0         | 0          | 0         | 0.2  | 0     | 0    | 0       | 873   | 0     | 0     | 0      | 0      | 0.5      | 0   | 0.1 | 0   | 0   | 0   | 0   | 0         | 0     | 0.4         | 6.1   |
| Japan       | 0         | 0          | 0         | 0    | 0     | 0    | 0.3     | 0     | 0.1   | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 3.6   |
| China       | 0.2       | 0.1        | 0.2       | 2.2  | 0     | 0    | 35.4    | 0     | 0.4   | 38.1  | 0.9    | 0.3    | 1.6      | 0   | 2.2 | 0   | 0   | 0   | 0   | 0.4       | 4.9   | 19.5        |       |
| Korea       | 0         | 0          | 0         | 0.2  | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Canada      | 0         | 0          | 0         | 1.7  | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.2         | 0     |
| Mexico      | 0         | 0          | 0         | 0.3  | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| Malaysia    | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 479   | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| KHM         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| IDN         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0.1      | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0.1         | 0.1   |
| LAO         | 0         | 0          | 0         | 0.5  | 0     | 0    | 0       | 0     | 0.2   | 0     | 0.1    | 0.1    | 0.3      | 0   | 0   | 0   | 0   | 0   | 1.2 | 0.1       | 1     | 0.3         |       |
| MMR         | 0.1       | 0          | 0         | 0.5  | 0     | 0    | 0       | 0     | 0.2   | 0     | 0.1    | 0.1    | 0.3      | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0.1   | 1           | 7.1   |
| PHL         | 0         | 0          | 0         | 0    | 0     | 0    | 0       | 0     | 0     | 0     | 0      | 0      | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 0     | 0           | 0     |
| THA         | 0         | 0.1        | 0.7       | 2.2  | 0     | 0    | 0       | 0     | 3.7   | 12.3  | 0.5    | 0      | 8.5      | 0   | 8.4 | 0   | 0   | 0   | 0   | 0         | 0.7   | 37.5        | 131.4 |
| LatinAmer   | 0.2       | 0          | 0         | 1.1  | 0     | 0.1  | 0       | 0     | 0.3   | 0.2   | 0.1    | 2.7    | 0        | 0   | 0   | 0   | 0   | 0   | 0   | 150.2     | 17.8  | 1.9         |       |
| EU_25       | 0         | 0          | 0         | 0.6  | 0     | 0    | 0       | 0     | 0.1   | 0     | 0.1    | 0      | 0.3      | 0   | 0   | 0   | 0   | 0   | 0   | 0.6       | 208.4 | 13.1        |       |
| RestofWorld | 0.8       | 0.1        | 2.8       | 34.4 | 0     | 0    | 0.1     | 0     | 5     | 0.5   | 5.4    | 0.7    | 5.2      | 0   | 0.1 | 0   | 0   | 0.1 | 0   | 1         | 171.4 | 127.3       |       |

# コメ・市場価格の変化 (%)

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|             | market price import<br>輸入された市場価格 | market price in<br>国内の市場価格 |
|-------------|----------------------------------|----------------------------|
| Australia   | 3.5                              | 2.9                        |
| New Zealand | 2.6                              | 0.4                        |
| Singapore   | 1                                | 1.2                        |
| USA         | 1.3                              | 11.4                       |
| Chile       | 9.1                              | 1.7                        |
| Peru        | 8.3                              | 0.1                        |
| Vietnam     | -0.5                             | 24                         |
| Japan       | -77                              | -6.7                       |
| China       | 6                                | -0.5                       |
| Korea       | 2.6                              | 0                          |
| Canada      | 6.5                              | 0.4                        |
| Mexico      | 10.8                             | 3.7                        |
| Malaysia    | 1.8                              | 101                        |
| KHM         | 10.2                             | 0.7                        |
| IDN         | 3.1                              | -0.3                       |
| LAO         | -5.2                             | 0.1                        |
| MMR         | 4.5                              | -0.5                       |
| PHL         | 3.4                              | -0.3                       |
| THA         | 1.5                              | -0.6                       |
| Latin Amer  | 5.2                              | 0.1                        |

# まとめ

27

Q:日本国内のセクター別の生産金額は？

- 全セクター合計1.2兆円の増加、
- コメセクターの6,400億円の減少  
→これを補償する財源はあるのか。

Q:輸出の変化は？

- 米国から日本へ 13,741%(9.7mil\$から1,341mil\$へ)の増加
- ベトナムから日本へ 221,108%(0.4mil\$から873mil\$)の増加
- マレーシアから日本へ52,357%(0.9mil\$から479mil\$)の増加

# 輸入金額の増加額 (million \$)

28

| qim         | Australia | NewZealand | Singapore | USA   | Chile | Peru | Vietnam | Japan  | China | Korea | Canada | Mexico | Malaysia | KHM | IDN  | LAO | MMR | PHL | THA  | LatinAmerica | EU_5     | RestofWorld |
|-------------|-----------|------------|-----------|-------|-------|------|---------|--------|-------|-------|--------|--------|----------|-----|------|-----|-----|-----|------|--------------|----------|-------------|
| Rice        | 0         | 0          | 0         | 18    | -0    | -0   | 29      | 15,897 | -38   | -43   | -1     | -9     | 17       | -1  | -3   | 0   | 0   | 0   | -0   | -67          | -16      | -54         |
| Wheat       | 1         | -0         | 1         | 20    | 3     | -8   | -20     | 419    | -54   | -5    | -0     | -8     | -15      | 0   | -1   | 0   | -0  | -4  | -1   | -13          | -24      | -176        |
| Grains      | 24        | 1          | -2        | 328   | 7     | -5   | 23      | 1,002  | -177  | -28   | -29    | -63    | 40       | 0   | -17  | 0   | 0   | -5  | -6   | -77          | -132     | -170        |
| Vegetable_F | 15        | 1          | 11        | 229   | 2     | -1   | 4       | -158   | -68   | -30   | -37    | -8     | 83       | -1  | -5   | -0  | -0  | -3  | -10  | -13          | -69      | -34         |
| Livestock   | 11        | -1         | -7        | 165   | 1     | -0   | 12      | -84    | -156  | -8    | -15    | -10    | 11       | 0   | -11  | 0   | 0   | -2  | -7   | -8           | -95      | -34         |
| MeatProduct | 24        | -3         | 1         | 151   | 30    | -1   | 33      | 14,604 | -79   | -32   | -62    | -43    | 32       | -0  | -9   | -0  | -0  | -8  | -15  | -23          | -50      | -44         |
| Fishing     | 0         | 1          | 3         | 20    | 0     | 0    | -2      | 30     | -6    | -3    | -3     | -0     | -5       | 0   | 0    | 0   | 0   | 0   | -1   | -0           | -4       | -0          |
| ProcFood    | 119       | 15         | 58        | 566   | 13    | -2   | 121     | 4,289  | -218  | -36   | -98    | -42    | -38      | -0  | -29  | -1  | -3  | -69 | -88  | -66          | -219     | -233        |
| Natural_R   | -81       | -5         | -10       | -722  | -21   | 2    | -2      | 395    | 117   | 76    | 17     | -3     | 29       | -1  | 15   | -0  | 0   | 7   | 101  | 4            | 61       | -4          |
| TextWapp    | 97        | 2          | -14       | 1,118 | 2     | 2    | 936     | 1,056  | -132  | -53   | -27    | -50    | 60       | 2   | -13  | 1   | 1   | -5  | -24  | -37          | -10      | -14         |
| LightMnfc   | 1,866     | 302        | -93       | 5,158 | 62    | 48   | 659     | 2,061  | -350  | -105  | -471   | -198   | 2,506    | -2  | -70  | -1  | -0  | -17 | -295 | -165         | -880     | -303        |
| HeavyMnfc   | 843       | 56         | -187      | 5,067 | 38    | 4    | 481     | 3,607  | ####  | -420  | -463   | -446   | 1,179    | -3  | -150 | -2  | -1  | -28 | -363 | -304         | ###<br># | -552        |
| Util_Cons   | 2         | 0          | -3        | 22    | 0     | 0    | 23      | 75     | -11   | -1    | -8     | -1     | 17       | -1  | -7   | 0   | 0   | -1  | -10  | -6           | -69      | -38         |
| TransComm   | 169       | 1          | -6        | 456   | 7     | -2   | 8       | 309    | -110  | -47   | -62    | -23    | 30       | -1  | -20  | -0  | -0  | -4  | -74  | -29          | -160     | -59         |
| OthServices | 171       | 1          | -15       | 621   | 8     | -4   | 91      | 482    | -139  | -75   | -185   | -59    | 26       | -0  | -38  | -0  | -0  | -6  | -91  | -59          | -459     | -183        |