



Asia-Pacific
Economic Cooperation

2007/ASCC/1.8

Session: The Threat to Human Health in APEC

1.8.2

Quarantine Trade Restrictions

Purpose: Information

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**Annual Conference of APEC Centres
Melbourne, Australia
18-20 April 2007**

APEC SPS Measures: A review of data available in WTO SPS notifications

It is difficult to get a sense of what is happening, globally - or even regionally - in the use of SPS (or TBT) measures. Most of the discussion of these barriers stays focussed on narrow domains. It tends to be about the administration of measures in a particular country, or their application in a product group such as wooden packing materials, or their application to particular risks arising for example from chemical residues or microbial pests or their impact on the export interests of a selected group of countries.

There has been relatively little attention given to global trends in SPS measures. Until recently, the WTO published some global data; for example, on total numbers of SPS measures in its Annual Report. But the latest Report (2006) abandons that practice.

A search in the literature reveals surprisingly few global impact analyses. That seems to be for two reasons:

1. There are few sources of consolidated data on measures over a long time period
2. The data that is available (such as the WTO summaries) supports only high-level incidence analysis; like other NTBs the impact of SPS measures depends entirely on details that incidence measures do not reveal

One notable exception is a recent (February, 2007) paper by Anne-Célia Disdier, Lionel Fontagné and Mondher Mimouni for the Center for International Data and Forecasting (CEPII) entitled "The Impact of Regulations on Agricultural Trade: Evidence from SPS and TBT Agreements." This study uses a database (unidentified, but apparently based on UNCTAD's TRAINS database) of measures that UNCTAD has collected from WTO notifications and classified using an eight-part rubric. The CEPII report merges this data with MacMap trade data for 2004 to produce some econometric estimates of the trade impact of SPS and TBT measures focusing on OECD countries.

The authors conclude: "Exports of developing and least developed countries to OECD countries are significantly reduced by these regulations." Perhaps not a surprise, but the only instance I know of such a broad proposition about SPS that detailed data supports.

I wish I had the resources available to academic researchers to reproduce this fascinating study for APEC countries. Alas, I don't. The best I can do is to present the prolegomena for some such study: a longish baseline of data on SPS measures taken by and affecting APEC countries drawn from the only available source: WTO notifications.

Are the WTO notifications a good representation of SPS measures? I think so.

I cannot be certain that they are a complete record. It is up to each WTO Member to determine for itself whether a measure that it takes is an SPS measure that it should notify under the provisions of the Agreement. The Member may be wrong. But only a WTO dispute can demonstrate that a Member is wrong on this count. To my knowledge there are no disputes decisions determining that a Member has misinterpreted its obligation to notify an SPS measure.

It would be risky for a Member not to notify an SPS measure. The notification is the key to the 'exception(s)' available to properly constituted - or at least, unchallenged - SPS barriers. Without the refuge of and SPS sanction, a measure is likely to fall foul of the prohibition on non-tariff measures, non-MFN measures and measures not consistent with National Treatment (among others).

I assume, therefore, that there are no un-notified SPS measures that anyone cares about and that the full record of measures that potentially impact the interests of WTO Members is contained in the notifications.

Notifications database

The WTO records of these notifications are, however, all but unusable for analytical purposes. They comprise thousands of inconsistently-formatted Word Perfect and Microsoft Word documents each containing the record of a single notification or a correction or addition to a single notification.

Most concern a single measure, giving a near one-to-one correspondence between notifications and measures. But some contain multiple measures.

Most provide the data in the required format using only the required fields and all of the fields provided in the standard format. But a substantial minority have some error in the location of the information among the fields provided or fail to complete all fields.

Member governments, all of whom probably burden their citizens with myriad incomprehensible forms, do not maintain a high standard when filling out simple SPS notification forms.

Nevertheless, the WTO notifications are the only original and putatively complete source of data on these measures. I attempted, therefore, in 2005/6 to create a database using the notifications in order to develop a global 'baseline' of SPS and TBT data between 1999 and 2005.

I succeeded after many contortions in extracting the information from 13,000 (or so) Word Perfect and Microsoft Word files, converting it to an equal number of SQL-formatted records. But the number of errors in the original data eventually defeated my attempts to make something useful. After many days spent correcting apparent errors I succeeded only in removing consistent errors, with the effect that the inconsistent errors became more prominent in database reports. These were, of course, more idiosyncratic and made an even bigger mess of the overall picture than did the consistent errors.

The database is perfectly functional for searching individual notifications. You can search it on my website. But it is not a good foundation for testing robust global propositions about SPS or TBT measures.

There is, fortunately, another source of notification data less prone to error (although not free of them). This is the 'index' to notifications compiled by the WTO Secretariat using the original notifications as a source. These documents that appear more-or-less monthly also have various errors but not as many as occur in the originals. They contain much less data than the original notifications, but a sufficient amount of data to provide useful insights into the evolution of SPS barriers.

They are the foundation for a new 'long baseline' database I have compiled of SPS measures from November 1999. This database contains some 6,000 records covering all SPS notifications from 1 September, 1999 to 1 March 2007.

Frequency analysis of APEC region SPS measures

(See slides at the back of this paper)

Slide 1

What has been happening world-wide? My first slide shows the 6034 SPS notifications per month from 1 September, 2006 to 31 January, 2007 by all WTO Members.

What you see is a rising trend from about 25 per month to about 75 per month, with a lot of variability month to month. The mean number of monthly notifications (68) is, of course, slightly higher than the median over this period (60) as the trend rises.

There is not much to be read into the variations except, perhaps for April, 2002, when China - catching up with its new membership obligations (or rights) - lodged 140 notifications in one month bringing the total to 230.

Slide 2

The next two slides show something about the structure of the notifications over this seven-year period: First the number of notifications by selected developing and transition countries, categorized by APEC and Non-APEC membership. This slide includes all APEC developing + transition WTO Member countries (not Vietnam or Russia) on the right hand side and most of the active non-APEC developing Members of WTO on the left-hand side in the ochre color. There's evidently a big difference in the propensity to notify between the two groups. Most of the APEC members have total notifications in the top three deciles of the distribution for developing countries as a whole. There's no apparent pattern within the range for APEC developing countries.

Slide 3

Now a similar categorization of developed economy notifications: represented here by the OECD membership. Here the difference between the notification records of the APEC countries and the non-APEC countries is still more pronounced. All of the APEC members of OECD appear to have notification records bigger than any of the non-APEC OECD members with the USA's 1827 notifications entirely of the scale of this chart. Of course, the comparison between the two groups of countries is distorted by the fact that the EC notifies as one WTO member with individual EC Members notifying only internal SPS barriers.

But a deliberate distortion can help clarify the comparison. Here (**Slide 4**), I distribute the EC notifications evenly among EC Member states. The contrast between the APEC and non-APEC members of OECD is even greater.

Slide 5

My fifth slide shows the monthly rhythm of notifications by APEC member countries over the seven year period of the data. It is not very different in shape from the first slide we saw of notifications by all WTO members, with a slightly rising trend in notifications-per-month over the period and - China apart - no dramatic variations.

Slide 6

The similarity is explained by overlaying the two charts at the same scale: the APEC member notifications by month in blue and the total notifications by all members of WTO in green. As you can see, APEC members account for the majority of all notifications in every month of the seven years.

It is also apparent from this slide that the degree of the APEC domination of the notification schedule changes over the period. In 1999, APEC members accounted for 80% or more of all notifications. But by 2007 they account for only 50-60% of notifications. Furthermore, as we saw a minute ago, the total number of notifications by all WTO members is rising in the

second half of this seven year period, but we can see here that it is rising faster than the number of APEC notifications is rising.

What accounts for the growing gap?

Slide 7

It is easier to see the gap if we illustrate the trend as (unsmoothed) lines. Of course this is not continuous data so the lines are an illusion. First, total WTO notifications in green. Next, APEC member notifications in blue. The gap in the past two years is a little clearer, here. Now non-APEC developed countries, represented here by the EC 27 (no explanation for the gap there). Finally, non-APEC developing members of WTO. Here, obviously, is the explanation for the rise in total numbers of notifications in the last two years of the period: a marked increase in the rate of non-APEC developing country notifications.

Slide 8

Against whom did these countries take action? They notified a total of 1089 measures (i.e. notifications that were not 'corrections') over the seven year period. There were a total of 591 other Members of WTO specifically targeted by non-APEC developing countries' measures and 498 notifications (46%) that targeted all trading partners including 119 notifications that left the 'Affected' country field blank. In other words, just over half of the non-APEC developing countries' measures sought to control imports from specific countries (189 of them aimed at APEC member countries - **Slide 9**).

Slide 10

APEC members notified a total of 4215 measures (i.e. notifications that were not 'corrections'). I would have guessed that Australia should rank near the top of this distribution given the prominence of quarantine among our border measures. At least over the past seven years, however, Australia has been less active in notifications than Canada, Chile, China, Japan, Korea, New Zealand and the United States.

Slide 11

Slightly less than half of all the measures that APEC Members notified 2096, or 49% — targeted 'all' countries while 2119 nominated country-specific targets.

Slide 12

Some measures notified by APEC members target other APEC members by name. Here, New Zealand takes the prize with 111 measures.

Slide 13

But, overall, the measures in which APEC members nominate another APEC member are a tiny proportion of total measures that they notified during the period, accounting for 523 or 12% of the total.

Slide 14

Continuing this 'intra-APEC' theme of APEC Member notifications of measures affecting other APEC members, this slide shows the number of measures affecting each APEC member that another Member of APEC notified. So, for example, 215 measures were taken against United States exports over the seven year period to January this year by other members of APEC. Canada comes a distant second, followed by Japan (surprisingly, perhaps for a country that has few agricultural exports: many of the measures appear to target beef products), Australia and China.

Slide 15

In fact, by far the majority of measures that nominate the exports of an APEC member economy have been notified by other APEC members, as we see here. This is consistent,

however, with the overall dominance of APEC members in total notifications that we noticed at the outset.

Slide 16

The final slide in this section looks at the data on APEC member notifications in a 'reciprocal' way. For each APEC member, it compares the number of APEC country measures that nominate its exports (blue) with the number of measures it took against nominated APEC country imports during the period (in green). For example, we have already seen that there were 64 measures taken by APEC members that specifically nominated Japanese exports (dark blue bar) but Japan notified only 4 measures during the period that nominated imports from another APEC economy although it notified a total of 131 measures overall.

Slide 17

In the last section of my presentation, I would like to look at some possible associations between the data on the number of SPS notifications by APEC member countries and other relevant aspects of their economies. I'll begin by considering the share of each country in the total agricultural imports (from all sources) by APEC members in 2005. APEC members in that year imported some \$US227bn in products that fell into Chs1-24 of the HS. This chart shows, as we would expect, that the USA and Japan each accounted for about 20% of the total agricultural imports in that year. A long way behind them are Canada, China and Mexico each with a share of a little over 5%.

I want to test the hypothesis that the distribution of the SPS measures notified by APEC members is closely related to the distribution of agricultural imports. That is, the more important you are as an importer of agricultural products, the more SPS measures you take. In each case the 'sample space' is the APEC region so I need to compare shares in total APEC agricultural imports with shares of measures taken by APEC countries.

Slide 18

Here's the result. The percent share of agricultural imports (Right-hand axis) is arbitrarily scaled against the total number of measures taken by each APEC member over the period. I've set the scale of the two graphs so that the highest import share (USA) is equal to the highest number of measures (also the USA). I can use arbitrary scaling because the magnitudes do not matter here; only the relationship between APEC members in each chart matters. The overlay allows us to see whether the relationship is similar in each case.

Clearly, it is not. It is clear that Japan's level of notifications does not match its very high level of imports. Except for the arbitrary setting for the USA and the close coincidence of Australia's shares, there is not a close match between the two distributions at all.

My conclusion is that the level of notifications by an APEC Member does not reflect the relative importance of a country as an agricultural importer within APEC.

Slide 19

Perhaps it's not the level of imports but the importance of agricultural production that is associated with high levels of SPS measures. What if we compared the share of agriculture in GDP with SPS measures against imports from any source? Here, I've taken the Agricultural share of GDP from FAO sources and sorted the proportions in APEC member countries in ascending order, left to right. However, the overlay of APEC Member countries' measures against imports from any source shows no correlation with this distribution at all. Even less correlation than with import levels.

Slide 20

Since there's no correlation with imports or the importance of agriculture to the economy, perhaps we should look at a correlation to the importance of agriculture in total exports. It

seems reasonable that the more important agriculture is to exports the more careful a country would be about protecting its industry from imported pests and disease.

Here I compare the 2004 agricultural share of exports in each country - ranked from the lowest (Taiwan) to the highest (New Zealand) among APEC Members - with measures notified against imports from all sources.

Again, no correlation is evident. Even if we ignore the USA notification data, the left-to-right progression of notifications does not reflect the increasing importance of the agriculture share of exports.

Slide 21

Having drawn a blank on imports, production and exports as associated factors, what about tariff protection? If we plot the simple average of applied duties on agriculture (taken from ITC Market Access Map) against the level of notifications of measures against imports from any source we do begin to see a relationship. The relationship is inverse as we would expect. Those members with higher levels of average tariff protection tend to have lower levels of notification; and vice versa.

Slide 22

In fact the inverse relationship is still more evident if we consider only measures that nominate imports from APEC sources.

My tentative conclusion, therefore, is that in the APEC region the lower the tariff protection against imports at the border, the more inclined a country is to take SPS measures that target food and agricultural exports from other APEC members.

The data does not show a simple, geometric relationship between SPS measures and tariff protection. But it seems to me to indicate that higher rates of initiation of SPS measures are associated with lower levels of tariff protection and to suggest some support for the further hypothesis that APEC members may be using SPS measures as a substitute for tariff protection.

I find that further hypothesis plausible because I believe we see that protectionist pressure all the time in Australia.

When I consider the highly passionate defence that has been offered by growers in support of decades-long import prohibitions of apples from New Zealand (now withdrawn), shrimp and shrimp meat from all over Asia (not yet imposed), chicken meat and fresh pork from some of the world's largest and most productive producing countries, bananas from anywhere they are grown more competitively than in Australia ... it is clear to me that there is a powerful protectionist lobby behind some high profile Australian quarantine measures, especially those that benefit a regional producer industry.

This database shows only the flow of measures, not the stock of protection due to SPS nor the depth of the protection. Those, I hope, will be projects for the future.

I have made the database used here available for your use on my website:

www.petergallagher.com.au or www.inquit.com



APEC SPS MEASURES

exploring the WTO notifications database

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inquit pty ltd

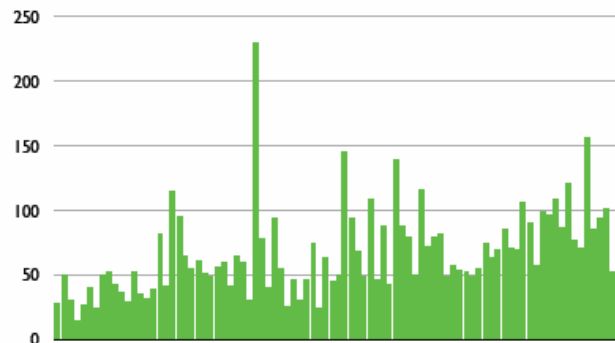
www.inquit.com

1



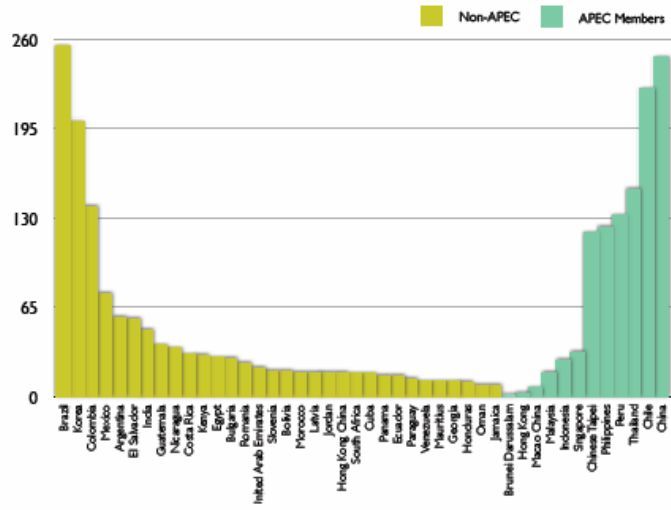
Number of notifications by month

September 1999 to January 2007



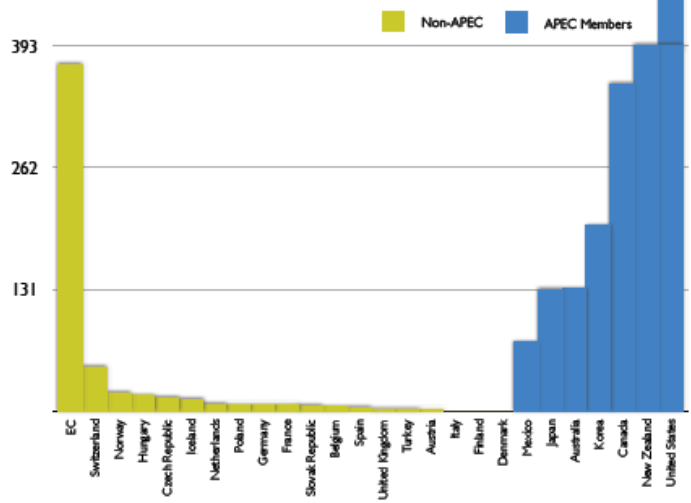
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Selected developing + transition country notifications



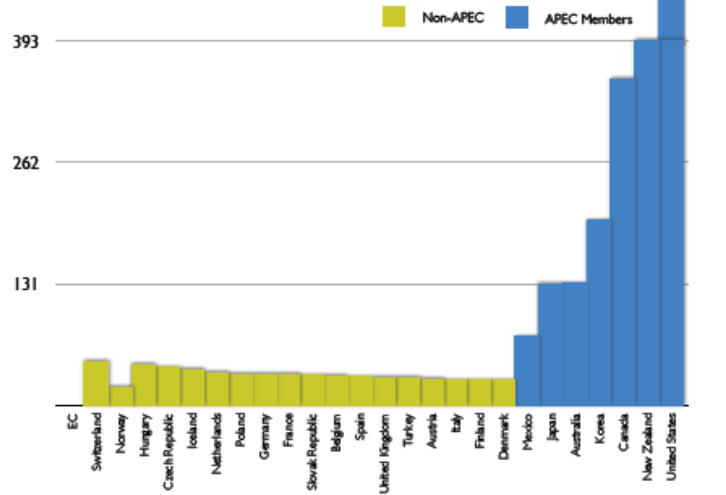
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OECD country notifications



4

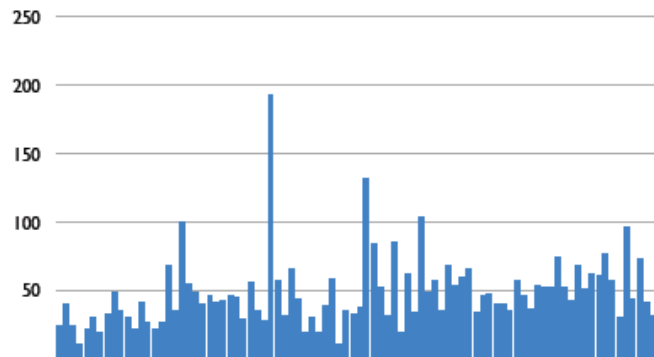
OECD country notifications -- EC "distributed"



5

APEC member notifications by month

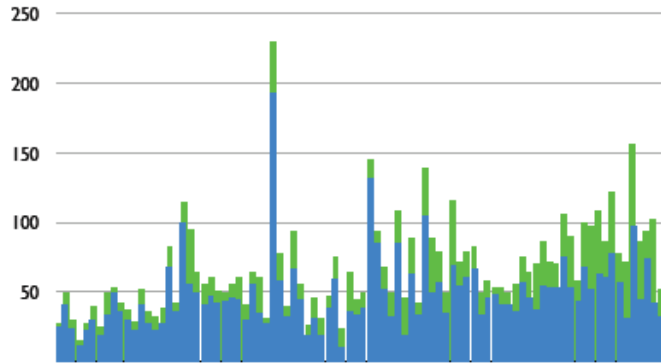
September 1999 to January 2007



6

APEC and Other notifications by month

September 1999 to January 2007



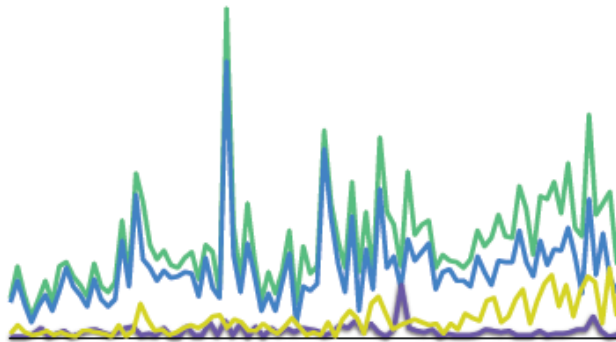
7

APEC member and total notifications by month

September 1999 to January 2007

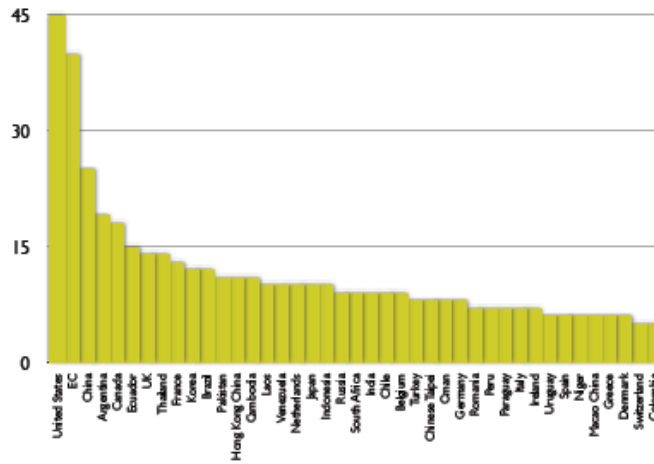


— APEC member notifications
— Total notifications



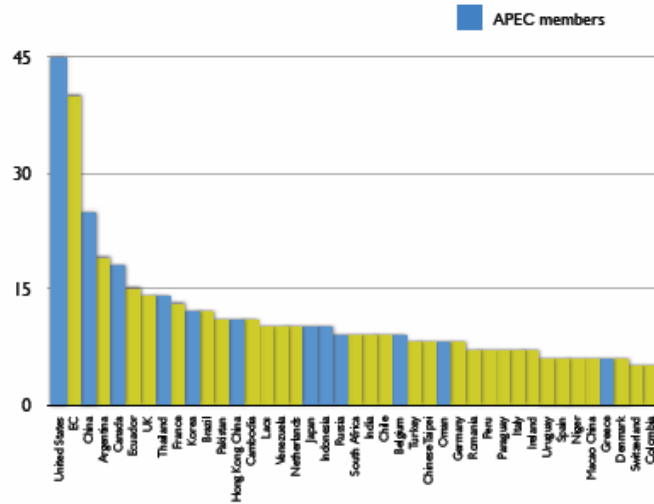
8

Top targets of non-APEC developing countries



9

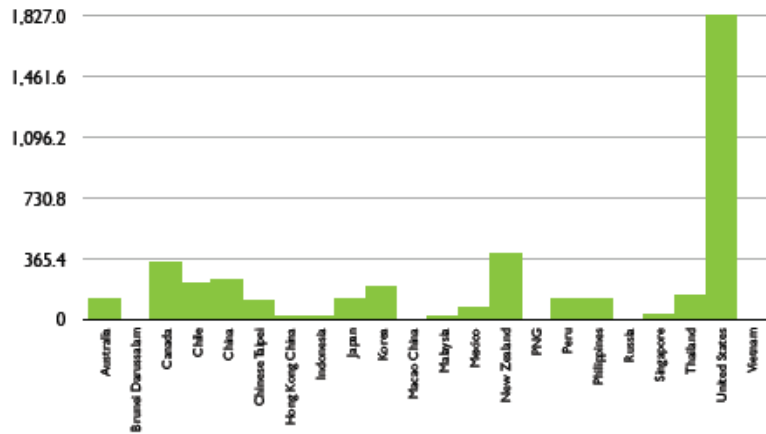
Top targets of non-APEC developing countries



10

Measures notified by APEC members

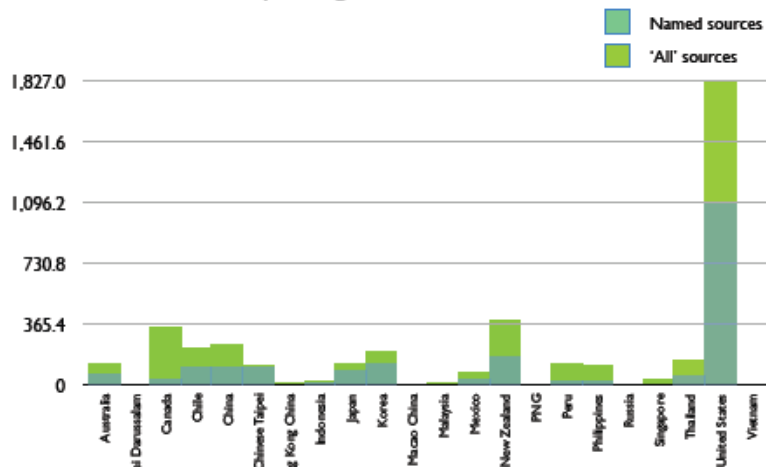
Total number of measures



11

Measures notified by APEC members

Measures notified against nominated and 'all' sources

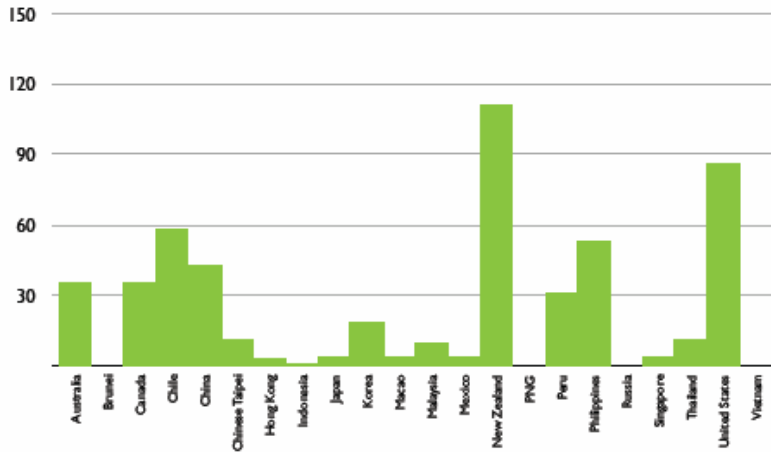


12

Measures notified by APEC members



Number of measures nominating other APEC members

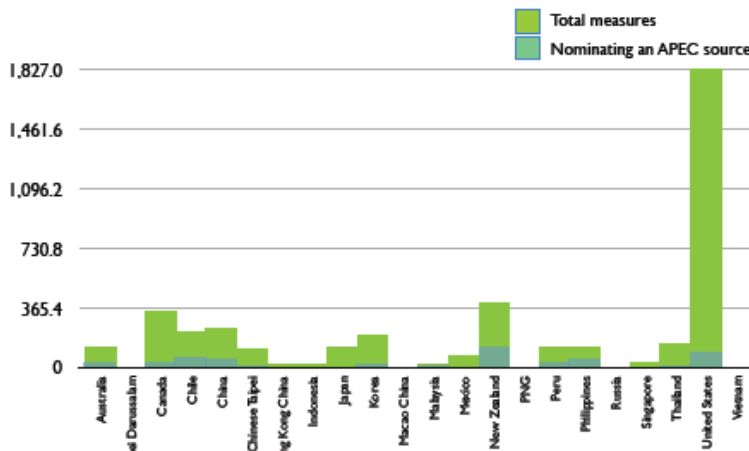


13

Measures notified by APEC members



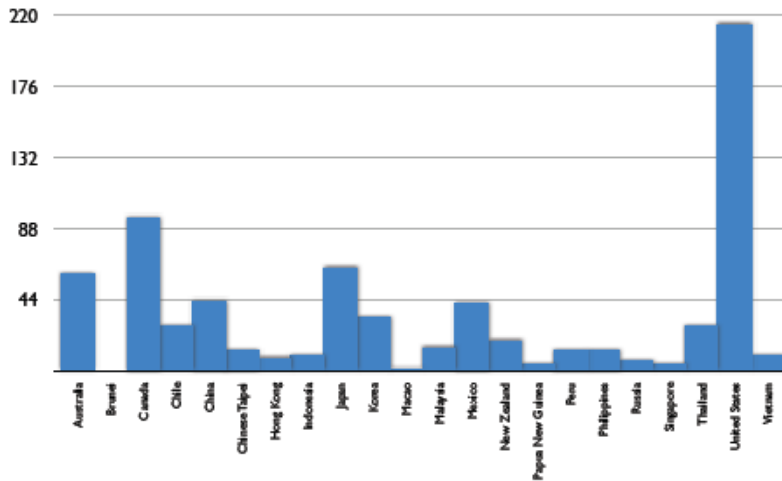
Total number of measures and measures nominating and APEC member



14

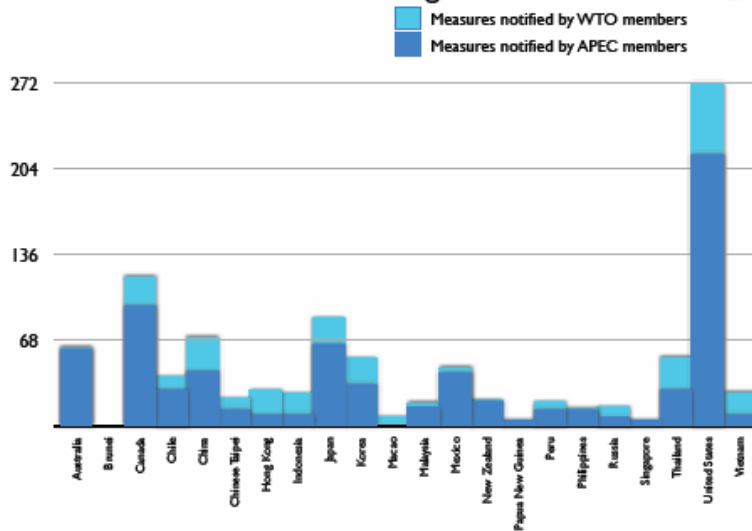
Measures notified by APEC members

Number of measures affecting each APEC member



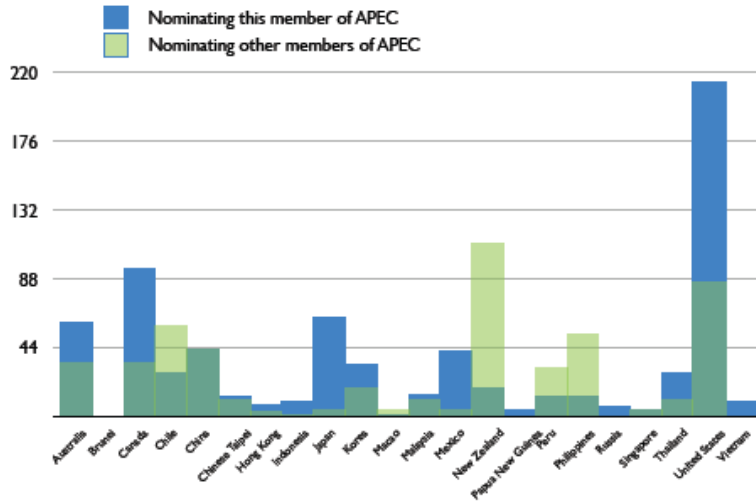
15

Number of measures affecting each APEC member



16

Measures notified by APEC members

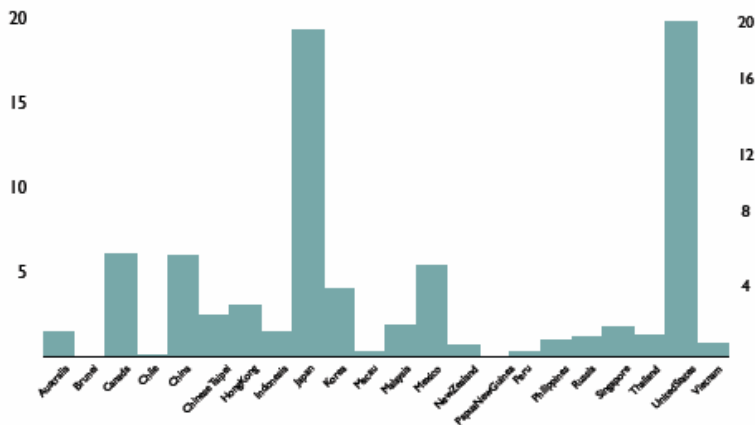


17

Percent share of APEC Agricultural Imports (2005)

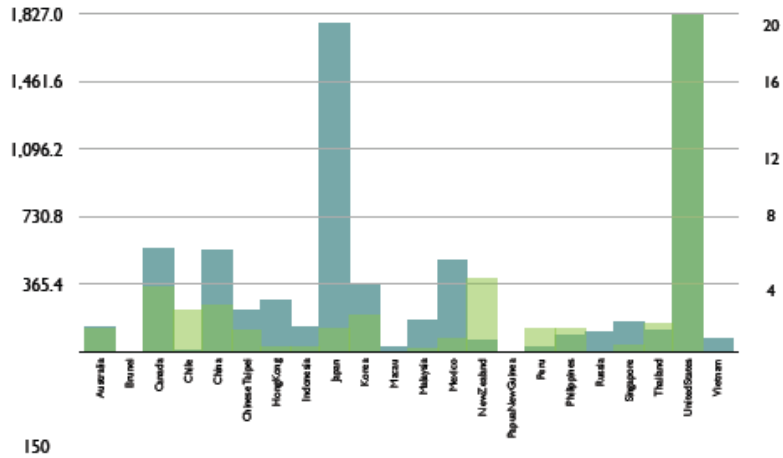


Calculated from ITC Trade Map data



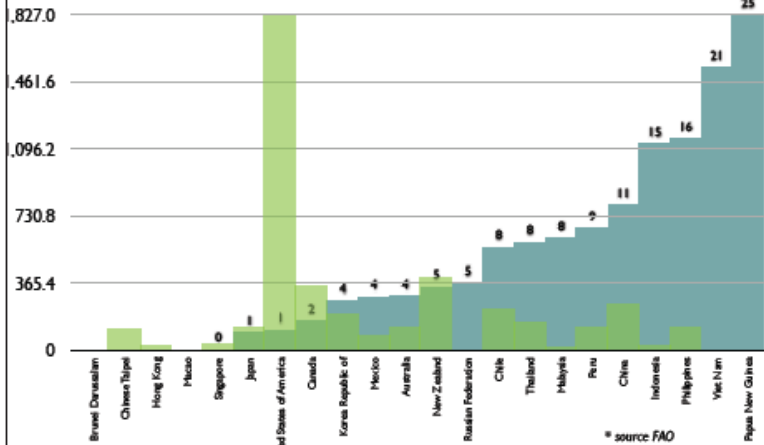
18

Percent share of APEC Agricultural Imports (2005) and measures taken against imports from any source 1999-2007



19

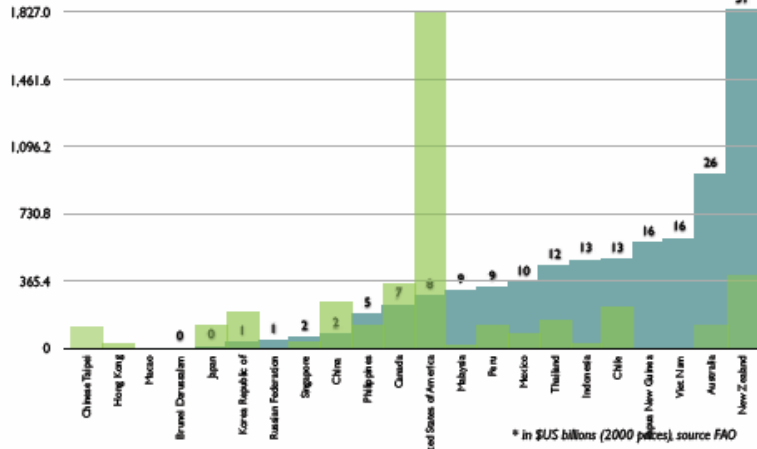
Agricultural Share of GDP in 2004* Measures taken against imports from any source 1999-2007 sorted by agricultural GDP



* source: FAO

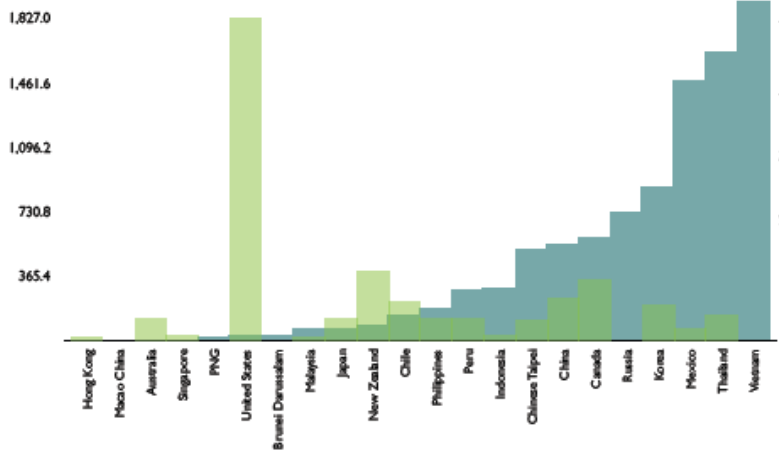
20

Agricultural Share of total exports in 2004* and measures against imports from all sources 1999-2007 sorted by agricultural export share



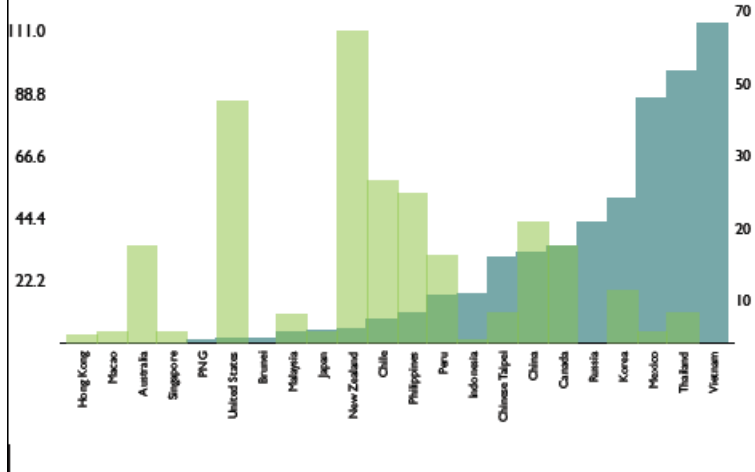
21

Avg. applied duties on agriculture (2005) and measures taken against all sources 1999-2007



22

**Avg. applied duties on agriculture (2005)
and measures taken against APEC-sourced imports 1999-2007**



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Inquit Database of SPS Measures

at

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