

Deloitte Access Economics

**Review of APVMA Cost
Recovery Discussion Paper**

Prepared for

CropLife Australia

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Acronyms

AERP	Adverse Experience Reporting Program
Agvet	Agricultural and veterinary
APVMA	Australian Pesticides and Veterinary Medicines Authority
AGCR Guidelines	Australian Government Cost Recovery Guidelines (2005)
CRIS	Cost Recovery Impact Statement
DAE RGEM	Deloitte Access Economics Regional General Equilibrium Model
DAFF	Department of Agriculture, Fisheries and Forestry
DSWEPAC	Department of Sustainability, Environment, Water, Population and Communities
DHA	Department of Health and Ageing
FTE	Full Time Equivalent jobs
GDP	Gross Domestic Product
GNP	Gross National Product
SLA	Service Level Agreement

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Executive Summary

CropLife Australia engaged Deloitte Access Economics to review the Australian Pesticides and Veterinary Medicines Authority (APVMA) Cost Recovery Discussion Paper (the Discussion Paper) and to model the economic impact of inefficient regulations on agriculture and the wider economy. The Discussion Paper is a precursor to Cost Recovery Impact Statement (CRIS) to be undertaken in March 2012, and follows the Better Regulation of Agricultural and Veterinary Chemicals Regulation Impact Statement (RIS) released in November 2011. While the focus of the Discussion Paper (and this Review) is on the proposed cost recovery arrangements from 1 July 2012 to 30 June 2015, the broader reforms and the efficiency and effectiveness of agvet chemical regulations are also relevant.

A three-way compact

The purpose of a RIS and CRIS for agvet chemicals is, in essence, to propose a three-way compact between government, industry and the wider community: to raise revenue from industry, which funds regulatory activities by government, which benefit the wider community by protecting human health, the environment and trade.

In forming this compact there is an onus on APVMA to demonstrate that the \$30.4 million being sought from industry next fiscal year will result in a commensurate improvement in human health, trade or environmental values.

In the broader context of Australia's skill shortages (particularly in scientific disciplines), our ageing population and the need to collectively lift our nation's productivity performance, governments should only consume \$30.4 million of society's resources if there is a demonstrable benefit (in terms of human health, trade and environmental outcomes). If not, those resources should be redeployed to activities that are likely to generate a higher payoff to society.

While it may be tempting to dismiss the \$30.4 million cost as an impost on the chemical industry, we also demonstrate that – in the interlinked world in which we live – any unnecessary costs that fall (in the first instance) on the chemical industry are passed onto farmers and ultimately detract from our collective prosperity.

With that in mind, a notable gap in this three-way compact (that is, the Discussion Paper and RIS documents, as they currently stand) is the absence of empirical evidence that APVMA's activities – particularly the most expensive component, the \$19.1 million per annum National Registration Scheme (NRS) – has resulted in the desired outcomes for human health, trade and the environment. While other government regulators routinely conduct studies to confirm whether various medical, road safety or occupational health and safety regulations are proving effective (for example, in terms of lives saved or accidents prevented), studies of this nature do not appear to have been conducted (or, at least, were not readily available) in the case of APVMA. Empirical evidence of this nature would be a valuable addition in the upcoming CRIS, and would also help inform the other review and reform processes currently underway relating to agvet chemical regulations.

Review of the Discussion Paper

Putting aside the lack of demonstrable benefits expected from the current level of revenue, nor the requested increase in revenue, the Discussion Paper does not appear to closely follow the Australian Government Cost Recovery (AGCR) Guidelines. In several areas, the information presented in the Discussion Paper is insufficient for stakeholders to verify or understand the revenue sought, why it should increase, and whether the complex fee schedule proposed is cost effective to administer.

A number of recommendations have been made regarding the areas where the Discussion Paper, and the cost recovery arrangements more broadly, could be improved. These recommendations are

explained in the main body of this report. A summary of the recommendations is provided on the following page.

Recommendation 1

APVMA should release more information to stakeholders to foster a greater understanding of the revenue being sought. In particular, the PricewaterhouseCoopers (August 2011) Activity Based Costing report and the Service Level Agreements with the Health and Environment departments were not available for verification at the time of writing.

Recommendation 2

APVMA should examine whether direct-sourcing assessments from DHA and DSEWPAC is the most cost effective procurement option.

Recommendation 3

The levy component of APVMA funding should not be set as a ‘balancing factor’ to achieve whole-of-agency cost recovery.

Recommendation 4

APVMA should consider seeking appropriations to fund deliberate policy decisions to have under-recovery of costs of some activities, rather than funding this by over recovering from other activities.

Recommendation 5

Policy development and parliamentary servicing functions should not be cost recovered from industry.

Recommendation 6

APVMA should allow for productivity improvements that (at least) offset any above-CPI wage increases, resulting in a lower total amount of revenue sought. Economies of scale should also be factored in to the APVMA revenue ask, resulting in annual revenue growth in the order of CPI minus 2 to 3 percentage points.

Recommendation 7

APVMA should provide a more robust justification for the need to restructure its cost recovery arrangements, or provide more statistical evidence of the impact of drought on its revenues. ‘Appropriate and sustained revenue’ should not be the main focus of cost recovery.

Recommendation 8

APVMA should not introduce any material changes to overall revenue levels, composition or complexity until the fundamental review of the APVMA’s cost recovery arrangements is completed.

Recommendation 9

The fundamental review of the APVMA’s cost recovery arrangements should examine the uncapped levy, cross subsidies and the potential for rebates. There is scope for the number and complexity of fees to be reduced.

Recommendation 10

The cameos in Appendix C should reconcile with the aggregate increase in revenues paid by industry.

Recommendation 11

APVMA should review the need for a financial reserve and should seek to break even on average, or should provide further information on the justification for this reserve.

Recommendation 12

APVMA should review its business processes to determine whether there are cost savings or operational efficiencies that could be implemented.

Recommendation 13

APVMA should set timeliness performance targets for the “2 to 3 month” class of applications separately from the other categories.

Recommendation 14

APVMA should explore options for allowing industry to procure their own technical assessments in support of their application, from independent APVMA-accredited third party assessors.

Recommendation 15

APVMA should clarify whether any one-off reform payments are being recouped from industry.

Recommendation 16

Given applications are rarely rejected, with 99.98% of finalised applications being granted, APVMA should review whether the \$19.1 million of resources allocated to this function is appropriately aligned with the risk of a company applying to register an unsafe product, and aligned with the benefits to human health, the environment and trade, from continuing to invest this level of resources into this activity.

Economic impacts of inefficient regulations

The Discussion Paper includes a significant increase in overall APVMA funding levels in the coming years, and a restructuring of the composition of the sources of that funding. APVMA revenues (excluding one-off reform funding) have been in the order of \$25 million and are proposed to increase to \$33 million over the timeframe of the Discussion Paper. There are also questions raised above, about whether current assessment procurement practices are delivering value for money.

To illustrate the economic impacts of inefficient regulation, an \$8 million increase (in 2012 dollars) in the cost of regulating agvet chemicals has been added to the annual cost structure of the chemicals sector, which is then passed on to the agricultural sector in Deloitte Access Economics’ Regional General Equilibrium Model (DAE RGEM).

Agriculture is a trade-exposed sector, competing against other agricultural producers around the world. Increases in the cost of agvet chemicals – caused by regulatory processes that are more costly than they need to be, and cause farmers to pay more for these chemicals than they would have otherwise – reduces the competitiveness of our agricultural exports, resulting in a reduction in economic activity and employment, as described in the following table. The magnitude of these results depends heavily on the substitutability of domestic for imported agriculture and the ability of the farming sector to absorb cost increases. In the results below, the impact on exports is a component of, not additional to, the impact on GDP and GNP.

Table i: Impact of an additional \$8 million in regulatory costs

Agvet chemical cost increase (\$M)	8
Australian GDP (\$M)	-21
Australian GNP (\$M)	-18
Australian exports (\$M)	-17

Source: DAE RGEM

In summary, if the regulation of agvet chemicals is conducted in a manner that is \$8 million (in 2012 dollars) per annum less efficient than could otherwise be, it reduces aggregate output by \$21 million per annum. Allowing for income flows overseas, the impact on the living standards of Australians (GNP) is a reduction of \$18 million.

In the context of a cost benefit analysis, this \$18 million cost would need to be weighed against the benefits that are expected to flow from that additional funding.

These impacts are purely from the additional cost of regulations on existing agvet chemicals offered for sale in Australia. They do not include the additional benefits that might accrue to Australia from

having access to beneficial agvet chemicals, which due to the current regulatory costs and timeframes, companies choose not to offer for sale in Australia.

1 Discussion paper review

1.1 Introduction

This section raises issues and provides recommendations arising from the APVMA Cost Recovery Discussion Paper ('the Discussion Paper'). The focus of these comments is on areas where the approach to cost recovery could be improved or could better align with the Australian Government Cost Recovery Guidelines ('the AGCR Guidelines').

1.2 Release of information

The Discussion Paper references several documents that form the basis of the revenue proposed to be cost recovered from industry. These include:

- An August 2011 Activity Based Costing report by PricewaterhouseCoopers, and
- Service Level Agreements with the Department of Sustainability, Environment, Water, Population and Communities (DSEWPAC) and Department of Health and Ageing (DHA).

However, at the time of writing, these reports have not been made available to stakeholders, in some cases on the grounds of commercial sensitivity. For levy and fee payers to have confidence that the revenues being sought are appropriate it is essential for those stakeholders to be given sufficient information to enable them to be comfortable and confident that the levies and fees they are being asked to pay are justified and are being well spent.

Indeed, the AGCR Guidelines (p47) note:

'Commercial in confidence' is not usually a sufficient reason for withholding costing information for most products. Only a small proportion of the products of these agencies are commercial in nature. Overall, the benefits of transparency greatly outweigh any commercial considerations.

In the interests of transparency and accountability it is important for APVMA to release sufficient information to allow fee and levy payers to understand how the revenue is being spent. The information presented in the Discussion Paper was not sufficient to assess the validity of the proposed revenue ask.

Recommendation 1

APVMA should release more information to stakeholders to foster a greater understanding of the revenue being sought. In particular, the PricewaterhouseCoopers (August 2011) Activity Based Costing report and the Service Level Agreements with the Health and Environment departments were not available for verification at the time of writing.

1.3 Cost effectiveness of DHA and DSEWPAC SLAs

Our understanding is that APVMA direct-sources much of the health and environmental assessment work for chemicals from DHA and DSEWPAC, respectively.

The SLA documents were not made available so it is not possible to conclude definitively whether those SLAs represent value for money. While direct-sourcing of a service does not necessarily result in poor value for money, there are other methods of procurement that tend to be more conducive to obtaining value for money from a supplier.

Indeed, the AGCR Guidelines note (p47):

Market testing or contracting out some aspects of the agency's activities are also good ways of gauging efficiency.

Other methods of procuring these services could include:

- i) directly tendering for these services from multiple suppliers;
- ii) forming a pre-qualified panel of suppliers that can provide these assessments (to reduce the time in procuring each assessment); or
- iii) creating a network of APVMA-accredited assessors that agvet companies can directly contract to provide assessments.

There are examples in other industries where the regulator of that industry's hazardous equipment or the like allows the manufacturer or operator of those to directly procure certifications or inspections from an accredited third party inspector, which is then submitted to the regulator for registration.

Applying that analogy to agvet chemicals could see some aspects of the application assessment process undertaken by independent APVMA-accredited assessors, rather than government employees of APVMA, DHA or DSEWPAC.

Recommendation 2

APVMA should examine whether direct-sourcing assessments from DHA and DSEWPAC is the most cost effective procurement option.

1.4 Whole of agency recovery

The APVMA seeks to recover its entire operating budget from industry, with two exceptions funded by appropriations:

- \$133,000 a year of appropriated funds towards its activities on Minor Use.
- \$650,000¹ a year to compensate for lost interest earnings following the move to the FMA Act.

As side from these exceptions, the remainder of the agency budget is recovered from industry, estimated to be \$30.4 million in 2012-13, rising to \$33.0 million in 2014-15.

In particular, the APVMA calculate the levy rate to capture any of its costs not recouped through other fees and charges (p6 of the Discussion Paper):

the levy rate being set as the balancing factor (that is, the difference between the APVMA's annual income from these sources, and its annual expenditure).

This could be interpreted as taking a different approach from that recommended in the AGCR Guidelines (p2):

Where possible, cost recovery should be undertaken on an activity (or activity group) basis rather than across the agency as a whole. Cost recovery targets on an agency-wide basis are to be discontinued.

By 'rounding up' the levy rate as the balancing factor to offset under recoveries elsewhere, it results in a cross subsidy where some parts of the agvet chemicals industry might be paying more than 100% of the true costs of the regulatory services they receive. Due to the large sales volumes of some agricultural chemicals (such as glyphosate), there is likely to be a cross subsidy being paid by farmers to fund the regulation of chemicals used by others, in areas as diverse as: pool and spa owners; marine and timber applications; and, domestic pet owners. However, the APVMA do not provide sufficient compositional information to enable the reader to understand the cross subsidies that are occurring. As noted in the AGCR Guidelines (p62):

Poorly designed levies can create the possibility of cross-subsidies between firms and/or industries. This possibility arises because a levy (whether a flat or proportional tax) applies to all members of a leviable group equally. If, within that group, some

¹ A figure of \$630,000 is reported on p3 of the Discussion Paper, and \$650,000 on p8.

members utilise the resources of the regulator less than others, then they can end up subsidising those members that require more intensive regulation.

Recommendation 3

The levy component of APVMA funding should not be set as a ‘balancing factor’ to achieve whole-of-agency cost recovery.

1.5 Activities that should be funded through appropriations

The AGCR Guidelines provide several examples of activities that should be funded through appropriations, including:

- Public goods, such as information activities, which include newsletters and websites that inform the communities.
- Explicit policy decisions to under recover in some areas, for example, to encourage innovation (p7 and p30) by not charging for some categories of applications.
- Explicit policy decisions to not charge for Consents to Import (p21) or not charging for the Adverse Experience Reporting Program (AERP) and Chemical Review (p23).

Where policy decisions have been made to provide free information to the public, to discount upfront costs or to not charge for some activities, it results in less than 100% cost recovery of those activities. According to the AGCR Guidelines, these under recoveries should be funded through appropriations, rather than the current practice of over-recovering the cost of other activities through a levy or annual fee that is higher than it would otherwise be.

In particular, the Discussion Paper (p24) states the following:

The APVMA’s policy development and parliamentary servicing functions (such as Senate Estimates hearings, answers to Questions on Notice and ministerial briefings) are integral to the effective management of the NRS and are therefore appropriate and efficient to include in cost recovery.

This appears to conclude the opposite to one of the key principles in the AGCR Guidelines (p2):

Costs that are not directly related or integral to the provision of products or services (e.g. some policy and parliamentary servicing functions) should not be recovered.

Furthermore, the AGCR Guidelines (p23) specifically address the disincentive issue that have prompted the APVMA to not charge for Consents to Import:

Charging can be inconsistent with policy goals if it significantly increases the cost of enforcement. For example, charging to list products on a register could create incentives for firms to avoid registration, thus increasing the costs of enforcement and reducing the usefulness of the register.

The AGCR Guidelines (p23) remedy for this conundrum is to:

Consider funding the regulatory activity from general tax revenue

Whereas the Discussion Paper proposes a different solution (p21)

It is appropriate therefore to recover these costs through the levy.

The Discussion Paper could benefit from a closer cross-referencing against the AGCR Guidelines, to make it clearer to the reader how each component of the APVMA cost recovery proposals aligns with the relevant part(s) of the AGCR Guidelines, or to provide stronger justifications where the APVMA is proposing cost recovery arrangements that appear to depart from AGCR Guidelines.

Recommendation 4

The Government should consider using appropriations to fund deliberate policy decisions to have under-recovery of costs of some activities, rather than funding this by over recovering from other activities.

Recommendation 5

Policy development and parliamentary servicing functions should not be cost recovered from industry.

1.6 Are wage increases offset by productivity gains?

The Discussion Paper (p27) seeks to increase revenues by more than the rate of inflation using the following formula:

Indexation rates will be based on 75 per cent of the Wage Price Index (WPI) (annual change in WPI trend for the public sector) and 25 per cent of the Consumer Price Index (CPI) (annual change in all groups CPI, weighted average of eight capital cities), reported for the December quarter by the Australian Bureau of Statistics. The indexation rate is more heavily weighted to the WPI because the APVMA spends more on salaries than on supplies. The APVMA is subject to CPI increases and wage cost increases through service level agreements with other agencies—a mechanism is needed to ensure fees remain cost reflective over time.

This formula does not appear to take into account any productivity improvements that are achieved in return for above-inflation wage increases.

Typically, real wage increases (that is, wage increases over and above CPI) are paid in return for an increase in output per worker. Over time, as workers become better trained, more highly skilled and better equipped, they are able to produce more output per unit of time. In economic terminology, the APVMA's **real unit labour costs** should decline over time, as they do across the rest of the economy.

From the material presented in the Discussion Paper, it is unclear whether the APVMA is seeking to pay its staff and suppliers more for the same amount of output per unit of time, or whether there is any allowance for productivity improvements over time.

In the absence of further evidence to the contrary, the default assumption in the APVMA costing model should be that every dollar of additional wages paid (over and above general CPI inflation) is exactly offset by an increase in the output per worker, allowing the APVMA to gradually reduce its headcount over time as staff and suppliers become more productive in return for their higher wages.

Mathematically, this would result in the overall revenue ask only increasing at the rate of CPI (or less), not at the 75/25 formula proposed in the discussion paper, other things equal.

Any growth in APVMA workload (say due to an increasing number of applications for new chemicals) should be self-funding as the existing recovery formulas automatically compensate the APVMA for a higher volume of chemicals being approved and sold.

As a result, there does not appear to be sufficient justification – either from volume effects or price effects – for the APVMA to seek revenue increases that exceed general CPI inflation.

Indeed, the contrary may be true – due to the presence of some fixed costs in its operations, the APVMA should experience economies of scale (in addition to a decline in real unit labour costs, as noted above). That is, for each 1% increase in the volume of applications, the cost of processing those applications should rise by less than 1%. Other things equal, this would suggest that the overall revenue ask of APVMA should increase in line with a CPI-X formulation, where X would be in the range of 2 to 3 percentage points per annum. That is, the APVMA's revenue ask should rise at a rate in the order of 2 to 3 percentage points slower than the rate of general CPI inflation.

If the APVMA has entered Service Level Agreements (SLAs) with DHA and DSEWPAC which grant payments to those suppliers which rise faster than the rate of CPI inflation without any productivity

improvements or economies of scale in return (in effect, an agreement to pay more without receiving anything extra in return), then it is not appropriate to seek additional revenues from industry to cover those excessive increases in payments to suppliers.

If the APVMA has agreed wage increases for its in-house staff that involve wage rises above CPI without receiving productivity improvements in return, again, it is not appropriate to seek additional revenues from industry to cover those excessive wage increases.

Recommendation 6

APVMA should allow for productivity improvements that (at least) offset any above-CPI wage increases, resulting in a lower total amount of revenue sought. Economies of scale should also be factored in to the APVMA revenue ask, resulting in annual revenue growth in the order of CPI minus 2 to 3 percentage points.

1.7 Drought and fiscal purposes

The APVMA is seeking a restructuring of its fees and charges, so that revenues are less exposed to ‘drought’ (p10):

Periods of lower-than-average rainfall or drought have resulted in lower agvet chemical use, and this directly causes lower levy revenue in the following year.

However, the information presented in the Discussion Paper is not sufficiently robust to enable the reader to draw the conclusion that there is a correlation (and preferably causation) between drought and APVMA revenues. While there may be anecdotal evidence that APVMA revenues were lower at about the same time as the drought in some parts of Australia, it is not conclusive evidence of a need for ‘drought proofing’ the APVMA revenue streams.

Indeed, the AGCR Guidelines (p18, emphasis added) note the following:

It is important for an agency to be aware of the agency objectives relevant to each activity or product to:

- *understand the purpose of the activity and who benefits or creates the need for the activity;*
- *assess whether adopting cost recovery would undermine the objectives of the activity;*
- *if cost recovery is appropriate, choose an approach to charging that is consistent with the objectives of the activity; and*
- *ensure that cost recovery is not undertaken simply to earn revenue.*

Much of the Discussion Paper is focused on generating a reliable revenue stream for APVMA, for example (page iii):

It concentrates on ensuring appropriate and sustained revenue to enable efficient and effective administration of regulation

This tends to suggest that APVMA views cost recovery largely as a revenue raising task, rather than a task of ensuring industry faces a cost structure that reflects the true cost of its activities.

Recommendation 7

APVMA should provide a more robust justification for the need to restructure its cost recovery arrangements, or provide more statistical evidence of the impact of drought on its revenues. ‘Appropriate and sustained revenue’ should not be the main focus of cost recovery.

1.8 Pre-empting the fundamental review

The Discussion Paper (p9, clarifications added) notes that the shares of revenue derived from application fees and the levy will be reviewed:

The Department of Agriculture, Fisheries and Forestry has indicated that during 2012 work will commence to complete detailed economic analysis to review the existing 40 per cent [upfront fee]/ 60 per cent [sales levy] policy as part of the current COAG reform agenda.

However, later in the Discussion Paper, the APVMA proposes to change the levy from 1 July 2012 (p11).

This Cost Recovery Discussion Paper notes that the changes discussed could lower the APVMA's reliance on the levy from 66 per cent to 40 per cent of the APVMA's total income.

The interim cost recovery arrangements proposed in the Discussion Paper appear to pre-empt the findings of the fundamental review to be conducted by the Department of Agriculture, Fisheries and Forestry (DAFF) in 2012 to 2014, and add further complexity to the already complex system of fees.

Recommendation 8

APVMA should not introduce any material changes to overall revenue levels, composition or complexity until the fundamental review of the APVMA's cost recovery arrangements is completed.

1.9 Uncapped levy

The levy, while tiered, is uncapped. As a result, some chemicals with high-volume sales contribute disproportionately to the cost of the APVMA's activities.

The AGCR Guidelines note the following:

Usually, there will be a minimum threshold below which regulatory costs will not fall. At the other end of the spectrum, regulatory costs are unlikely to expand indefinitely. Thus, an agency should set minimum and maximum levies in some circumstances. However, the setting of thresholds and caps should reflect the cost of regulation so they do not create cross-subsidies.

The Henry Tax Review (2009, chapter E1) also addressed the issue of industry levies. The fuel levy used to fund the Civil Aviation Safety Authority (CASA) has some similar characteristics to the APVMA levy, namely that it raises revenue in a way that is not closely aligned to risk.

A large, complex charter operation is inspected more often than an aerial work operation with only an occasional charter. However, since half of CASA financing comes from taxing aviation fuel used in domestic flights, airlines pay for regulation according to how much fuel they use on domestic trips, no matter how risky their operations are. Reforming CASA fees to recover costs from those requiring tighter regulation (and therefore imposing the spillover costs) would improve the efficiency of the airline industry

The Discussion Paper (page iii) notes:

A fundamental review of the APVMA's cost recovery arrangements will be undertaken over the period 2012–14.

This review may be the more appropriate vehicle for redesigning APVMA cost recovery, so that it becomes more than a purely revenue raising exercise, and instead uses costs recovery as a tool for setting price signals that raises less revenue from well-behaved firms supplying low-risk chemicals, and raises a higher proportion of revenues from areas of greater potential risk. This would also align with the broader DAFF initiatives to focus government resources on the areas of higher risk, and to use cost recovery as more than a revenue-raising tool, by using cost recovery to create price signals that encourage good behaviour and discourage high risk or illegal behaviour.

Some areas where APVMA could make more use of cost recovery to drive efficiencies and reduce risk are mentioned in the Discussion Paper, including the offering of a rebate when APVMA fails to finalise an application within the specified statutory timeframe. Other areas could include offering fast-track approval processes to firms with a good track record of compliance.

When rebates are paid, this would presumably results in less-than-full cost recovery, resulting in a revenue shortfall. It would not be appropriate to recoup those rebates elsewhere, by increasing other fees or the levy as a 'balancing factor' to offset rebates paid. Rather, the rebates would need to be funded through appropriations or by increasing operational efficiency.

The proposed schedule of fees involves a large number of different fees for different items. There may be scope to significantly reduce the number and complexity of the proposed fees.

Recommendation 9

The fundamental review of the APVMA's cost recovery arrangements should examine the uncapped levy, cross subsidies and the potential for rebates. There is scope for the number and complexity of fees to be reduced.

1.10 Potentially misleading cameos

Appendix C of the Discussion Paper (Tables 43 to 45) provides three cameos of the fees paid by different sized companies under the current and proposed charges. The tables show that large and medium companies will pay lower fees a small company will only pay a small increase in fees.

These tables are difficult to reconcile with the fact that **in aggregate** APVMA will be raising more revenue in total from the proposed new cost recovery arrangements. It is mathematically impossible, given the composition of the industry, for all stakeholders to be better off (or only slightly worse off in the case of small companies) while the revenue being raised from industry as a whole has increased.

Recommendation 10

The cameos in Appendix C should reconcile with the aggregate increase in revenues paid by industry.

1.11 The financial reserve

As a cost recovered agency, the APVMA should break even on average, but due to the nature of the agricultural sector and the agency's operating costs, there will always be fluctuations in revenues and costs from year to year.

In the Discussion Paper (p11) the APVMA noted:

Without this 'buffer', the APVMA could lapse into negative equity, which would breach financial regulations.

However, it is not clear where in the relevant regulations *Financial Management and Accountability Regulations 1997* (1 January 2012 compilation) there is a requirement for a reserve or a prohibition on negative equity. To assist stakeholders in understanding the need for a reserve, it would be helpful for APVMA to provide the citation or page reference to the relevant regulations.

Whether a financial reserve is necessary for reasons other than FMA Regulations is another question. If the APVMA was only able to pay its staff from its own revenues, there could be a risk of a cash shortfall or the need for a temporary bank overdraft. However, unlike a small business that can only spend the money it has in its bank account or up to the limit of its overdraft, it is unclear whether this is the case for APVMA. If it is the case that revenues paid to APVMA, payments to suppliers and payments to staff are instead paid from a central consolidated revenue account, then there is no need for APVMA to maintain a financial reserve. Put another way, is the payment of wages to the staff of APVMA are not, in fact, dependent on the receipt of revenues from industry, then the financial reserve is not necessary.

While unclear from the material presented in the Discussion Paper, it may be the case that if the AVMPA reserve became negative it would not actually result in the agency being unable to operate, and its bills would continue to be paid out of consolidated revenues.

If that is the case, it would be more sensible for the APVMA to pursue a financial strategy of breaking even on average, rather than maintaining a financial reserve that is always positive.

Recommendation 11

APVMA should review the need for a financial reserve and should seek to break even on average, or should provide further information on the justification for this reserve.

1.12 Activity based costing may not guarantee efficiency

The APVMA has conducted Activity Based Costing (ABC) to determine the revenue sought (though, as noted above, the ABC report by PwC has not been made available for stakeholder scrutiny).

ABC is an important tool for allocating costs to various activities. However, on its own, it does not guarantee that the APVMA conducts its activities in the most efficient manner possible.

The activity based costing model includes all overheads, and seems to make no attempt to determine whether activities associated with overheads are integral to the service being provided, as the AGCR Guidelines require.

There has been no attempt at justifying whether the costs that are being recovered are efficient costs. For example, proposed fee increases are justified partly on expected increases in the wage bill. But are these cost increases efficient?

A Business Process Review goes beyond an Activity Based Costing exercise to probe whether costs being incurred are appropriate and efficient, not just how those costs are allocated.

A Business Process Review of APVMA could be valuable, to examine whether there are better ways of performing its functions, whether the balance of administrative to technical staff is appropriate, whether some tasks can be outsourced, and whether the SLAs with DHA and DSEWPAC are the most cost effective ways of procuring these services. If APVMA has recently conducted such an exercise, it should be made available to stakeholders.

Recommendation 12

APVMA should review its business processes to determine whether there are cost savings or operational efficiencies that could be implemented.

1.13 Timeliness

The performance of APVMA against its statutory timeframes is specifically mentioned in the Discussion Paper (p2) as an issue to be examined.

Table 21 in the discussion paper shows that APVMA complete many of the short timeframe applications (those in the “2 to 3 month” categories) in the statutory timeframe. However, for the categories of applications with longer timeframes (5 months or more) – generally those involving more complex or technical work – only around half are completed in the statutory timeframe.

In 2009-10 the performance was lower, with a majority in every category of complex applications taking longer than the statutory timeframe.

APVMA has set performance targets (Table 23, page 44) based on the percentage of all applications completed in the timeframe. However, due to the large volume of applications in the “2 to 3 month” category (broadly speaking, the more administrative/non-technical applications), the performance in this category can mask the poor performance in some of the more complex/technical application categories.

Figure 1.1: APVMA pesticide application finalisation statistics**2010-11**

OUTCOME OF APPLICATION							
	Granted	In timeframe	% in timeframe	Refused	In timeframe	% in timeframe	Withdrawn
Class of application							
Modular (modules to be assigned) or TBA	5	5	100%	-	-	-	-
2 to 3 month	1407	1306	93%	-	-	25	22
5 month	103	88	86%	-	-	12	6
6 to 8 month	68	33	49%	-	-	3	1
9 to 12 month	47	26	55%	1	0	0%	5
13 to 15 month	13	7	54%	-	-	-	-
TOTALS:	1693	1465	87%	1	0	-	45

SUMMARY (Determination period)				
TOTAL finalised	Number in timeframe	% in timeframe	Av. clock On (months)	Av. elapsed time (months)
5	5	100%	0.1	18.4
1432	1328	93%	1.6	4.5
103	88	86%	0.3	15.5
71	34	48%	8.3	16.9
53	30	57%	11.3	26.6
13	7	54%	17.6	31.4
1739	1498	86.1%		

2009-10

OUTCOME OF APPLICATION							
	Granted	In timeframe	% in timeframe	Refused	In timeframe	% in timeframe	Withdrawn
Class of application							
Modular (modules to be assigned) or TBA	3	3	100%	-	-	-	-
2 to 3 month	1094	1041	95%	-	-	25	24
5 month	180	87	48%	-	-	16	11
6 to 8 month	78	33	42%	-	-	5	2
9 to 12 month	55	13	24%	-	-	10	5
13 to 15 month	10	2	20%	-	-	4	3
TOTALS:	1399	1149	82%	0	0	-	65

SUMMARY (Determination period)				
TOTAL finalised	Number in timeframe	% in timeframe	Av. clock On (months)	Av. elapsed time (months)
8	8	100%	0.0	9.8
1119	1065	95%	1.3	5.7
175	87	49%	8.7	19.4
83	35	42%	9.0	18.2
65	13	20%	12.8	38.0
14	2	14%	45.1	46.2
1464	1199	81.9%		

Source: APVMA Registration Statistics <http://www.apvma.gov.au/about/reporting/registration.php>.

Possible solutions

A potential method for speeding up the process would be to allow industry to directly commission the required scientific assessments from independent, accredited third party assessors, and submit that to APVMA along with the other application documents. This could significantly reduce the technical workload and timeframe required by APVMA once it receives the application. Rather than APVMA doing these assessments in-house (and through DHA and DSEWPAC), it may make sense for some outsourcing of this function. The use of accredited third party assessors (where APVMA would be responsible for the accreditation of those assessors) would also give industry greater control over the assessment and approval timelines.

There are precedents for using government-accredited third party assessors in other areas of government regulations, including hazardous machinery, construction, transport and many other areas where the government are able to regulate the activities of an industry (for the purpose of protecting health, safety and the environment), without the need for a government monopoly on conducting those inspections or assessments.

Recommendation 13

APVMA should set timeliness performance targets for the “2 to 3 month” class of applications separately from the other categories.

Recommendation 14

APVMA should explore options for allowing industry to procure their own technical assessments in support of their application, from independent APVMA-accredited third party assessors.

1.14 Treatment of one-off payments

It is unclear from the material presented in the Discussion Paper whether the one-off \$8.75 million in reform payments are later being recouped from industry through depreciation or amortisation in the agency's costing model. Further detail is required on the basis of the revenue ask to allow stakeholders to be fully informed on how one-off payments are being treated.

It is also unclear why there is \$2 million of Reform Agenda funding being repaid to government in 2012-13 and 2013-14, and whether this is being added into the revenue ask from industry in those years.

Recommendation 15

APVMA should clarify whether any one-off reform payments are being recouped from industry.

1.15 Allocating resources to the areas of greatest risk

Table 11 in the Discussion Paper (p33) shows that \$19.1 million of work was undertaken on registrations and approvals in 2010-11.

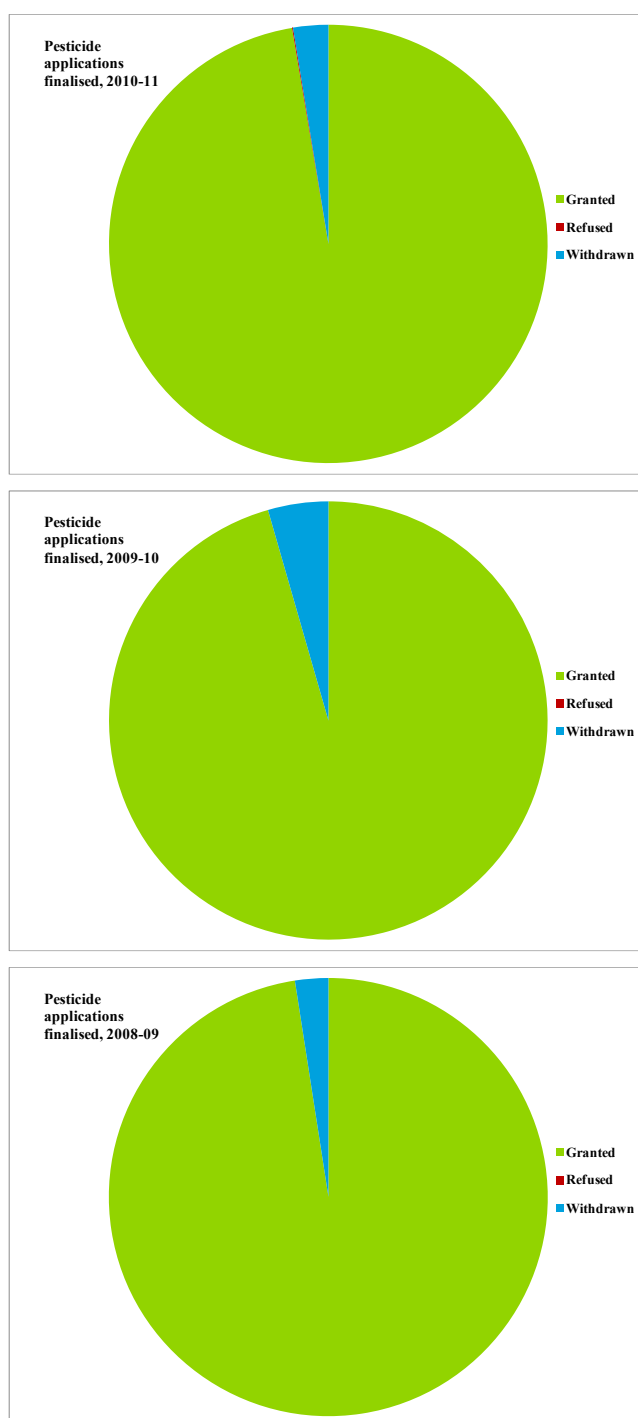
The pie charts on the following page show the number of applications finalised for pesticide registrations in the most recent three fiscal years where a full fiscal year of data are available. The data are from the APVMA website publications *Registration Statistics 2010-11, 2009-10, 2008-09*.

Due to the scale in the pie charts (summing to 100%), it is difficult to see the proportion of applications rejected, so the data are also provided in absolute numbers a table.

The data show that out of 4,471 applications finalised in the past three fiscal years, 1 was rejected (0.02%), 141 were withdrawn by the applicant (3%) and 4,329 (97%) were granted by APVMA. Putting to one side the applications withdrawn by the applicant, 99.98% of applications where a decision was required were granted. This appears to reflect a situation where companies will rarely submit an application for a product or active ingredient that they believe is unlikely to be granted by APVMA. Put another way, the data would seem to suggest that there are already sufficient incentives (such as reputational risk and public liability) for companies to only seek registration for products that are safe and effective, resulting in APVMA granting applications in 99.98% of cases that proceed to a final decision. A contributing factor to this high success rate is presumably because products have generally already been approved for use in overseas jurisdictions that have similarly high standards of environment and human health protection.

Given the \$19.1 million of work undertaken by APVMA to finalise applications, which rarely result in an outcome other than 'granted', it raises some questions:

1. Is the APVMA focusing its resources on the areas of greatest potential risk? Are there other higher risk areas – such as the AERP, Chemical Review, Quality Assurance, Compliance and Import programs – that may be more deserving of these resources (and, as noted above, the AGCR Guidelines suggests those activities should be funded by appropriations)?
2. Is it necessary to spend this amount of resources regulating an activity that appears *prima facie* to have a near-100% rate of compliant conduct? Is it possible to have a fast-track or self-assessment process for companies with a good track record of compliance?

Chart 1.1: Proportion of finalised pesticide applications granted, withdrawn or rejected**Table 1.1: Number of finalised pesticide applications granted, withdrawn or rejected**

	Total	Granted	Refused	Withdrawn
2010-11	1739	1693	1	45
2009-10	1464	1399	0	65
2008-09	1268	1237	0	31

Recommendation 16

Given applications are rarely rejected, with 99.98% of finalised applications being granted, APVMA should review whether the \$19.1 million of resources allocated to this function is appropriately aligned with the risk of a company applying to register an unsafe product, and aligned with the benefits to human health, the environment and trade, from continuing to invest this level of resources into this activity.

2 Economic impacts of regulatory costs

This section reports the results of General Equilibrium modelling to ascertain the impact on the economy of inefficient regulation.

The scenario examined here measures the benefits that would flow if the regulatory functions of APVMA could be undertaken in a more cost effective manner, reducing the cost recovery fees and levies charged to the chemicals industry by \$8 million per annum (in 2012 dollars).

The previous section outlines the areas where savings could be found that may allow APVMA to perform its role at a lower cost or funded through appropriations – while still providing the same level of benefits to the human health, the environment and trade – but at a lower cost to the industry.

To model the economy-wide impacts of the estimated impact of the estimated higher agricultural input costs, we have used Deloitte Access Economics' in-house Regional General Equilibrium Model (DAE RGEM). Further detail on the model can be found in Appendix A.

To model the policy impacts we applied an \$8 million increase to the total intermediate inputs supplied from the manufacturing sector to the agriculture sector in Australia. This price increase was applied to goods sourced from both domestic and international suppliers, since some chemicals are imported and some are manufactured locally.

We would anticipate these modelling parameters to reduce economic output and employment within the agricultural sector and generally across the economy. In the results below, note that the impact on exports is a component of, not additional to, the impact on GDP.

Table 2.1: Economic Impact of Additional Regulatory Costs on Agvet Chemicals

Agvet chemical cost increase (\$M)	8
Australian GDP (\$M)	-21
Australian GNP (\$M)	-18
Australian exports (\$M)	-17

Source: DAE RGEM

In summary, if the regulation of agvet chemicals is conducted in a manner that is \$8 million (in 2012 dollars) per annum less efficient than could otherwise be, it reduces aggregate output by \$21 million per annum. Allowing for income flows overseas, the impact on the living standards of Australians (GNP) is a reduction of \$18 million.

These impacts are purely from the additional cost of regulations on existing agvet chemicals offered for sale in Australia. They do not include the additional benefits that might accrue to Australia from having access to beneficial agvet chemicals, which due to the current regulatory costs and timeframes, companies choose not to offer for sale in Australia.

Benchmarking of costs

The costs spent in other jurisdictions (such as the United States or Europe) on regulatory functions that are similar to those undertaken by APVMA were not readily available. That noted, data from Phillips McDougall for 2010 show that sales of crop protection chemicals in Australia are approximately one-sixth the size of the United States and nearly one-tenth the size of Europe. Some benchmarking, of whether APVMA's regulatory expenditure relative to the size of the Australian market corresponds with regulatory expenditure in other countries relative to the size of their market, could be a beneficial part of any fundamental review of APVMA cost recovery arrangements.

3 Limitation of our work

General use restriction

This report is prepared solely for the use of CropLife Australia for responding to the APVMA Cost Recovery Discussion Paper and related activities. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose set out in our engagement letter with CropLife dated 24 Jan 2012. You should not refer to or use our name or the advice for any other purpose.

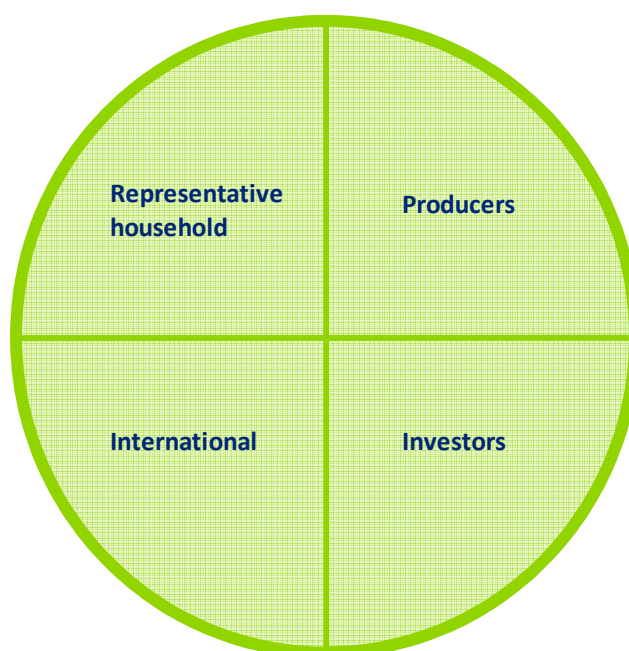
Appendix A GE Model

The Deloitte Access Economics – Regional General Equilibrium Model (DAE-RGEM) is a large scale, dynamic, multi-region, multi-commodity computable general equilibrium model of the world economy. The model allows policy analysis in a single, robust, integrated economic framework. This model projects changes in macroeconomic aggregates such as GDP, employment, export volumes, investment and private consumption. At the sectoral level, detailed results such as output, exports, imports and employment are also produced.

The model is based upon a set of key underlying relationships between the various *components* of the model, each which represent a different group of agents in the economy, with these relationships are solved simultaneously.

The figure below shows the key components of the model for an individual region. The components include a representative household, producers, investors and international (or linkages with the other regions in the model, including other Australian States and foreign regions). Below is a description of each component of the model and key linkages between components. Some additional, somewhat technical, detail is also provided.

Key components of DAE-RGEM



DAE-RGEM is based on a substantial body of accepted microeconomic theory. Key assumptions underpinning the model are:

- The model contains a ‘regional consumer’ that receives all income from factor payments (labour, capital, land and natural resources), taxes and net foreign income from borrowing (lending).
- Income is allocated across household consumption, government consumption and savings so as to maximise a Cobb-Douglas (C-D) utility function.
- Household consumption for composite goods is determined by minimising expenditure via a CDE (Constant Differences of Elasticities) expenditure function. For most regions, households can source consumption goods only from domestic and imported sources. In the Australian regions, households can also source goods from interstate. In all cases, the choice of

commodities by source is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.

- Government consumption for composite goods, and goods from different sources (domestic, imported and interstate), is determined by maximising utility via a C-D utility function.
- All savings generated in each region are used to purchase bonds whose price movements reflect movements in the price of creating capital.
- Producers supply goods by combining aggregate intermediate inputs and primary factors in fixed proportions (the Leontief assumption). Composite intermediate inputs are also combined in fixed proportions, whereas individual primary factors are combined using a CES production function.
- Producers are cost minimisers, and in doing so, choose between domestic, imported and interstate intermediate inputs via a CRESH production function.
 - The model contains a more detailed treatment of the electricity sector that is based on the ‘technology bundle’ approach for general equilibrium modelling developed by ABARE (1996).²
- The supply of labour is positively influenced by movements in the real wage rate governed by an elasticity of supply.
- Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. A global investor ranks countries as investment destinations based on two factors: global investment and rates of return in a given region compared with global rates of return. Once the aggregate investment has been determined for Australia, aggregate investment in each Australian sub-region is determined by an Australian investor based on: Australian investment and rates of return in a given sub-region compared with the national rate of return.
- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.
- Prices are determined via market-clearing conditions that require sectoral output (supply) to equal the amount sold (demand) to final users (households and government), intermediate users (firms and investors), foreigners (international exports), and other Australian regions (interstate exports).
- For internationally-traded goods (imports and exports), the Armington assumption is applied whereby the same goods produced in different countries are treated as imperfect substitutes. But, in relative terms, imported goods from different regions are treated as closer substitutes than domestically-produced goods and imported composites. Goods traded interstate within the Australian regions are assumed to be closer substitutes again.
- The model accounts for greenhouse gas emissions from fossil fuel combustion. Taxes can be applied to emissions, which are converted to good-specific sales taxes that impact on demand. Emission quotas can be set by region and these can be traded, at a value equal to the carbon tax avoided, where a region’s emissions fall below or exceed their quota.

The representative household

Each region in the model has a so-called *representative household* that receives and spends all income. The *representative household* allocates income across three different *expenditure* areas: private household consumption; government consumption; and savings.

Going clockwise around Figure B, the representative household interacts with producers in two ways. First, in allocating expenditure across household and government consumption, this sustains demand

² Australian Bureau of Agricultural and Resource Economics (ABARE), 1996, *MEGABARE: Interim Documentation*, Canberra.

for production. Second, the representative household owns and receives all income from factor payments (labour, capital, land and natural resources) as well as net taxes. Factors of production are used by producers as *inputs into production* along with intermediate inputs. The level of production, as well as supply of factors, determines the amount of income generated in each region.

The *representative household's* relationship with investors is through the supply of investable funds – savings. The relationship between the *representative household* and the international sector is twofold. First, importers compete with domestic producers in consumption markets. Second, other regions in the model can lend (borrow) money from each other.

Some detail

- The representative household allocates income across three different expenditure areas – private household consumption; government consumption; and savings – to maximise a Cobb-Douglas utility function.
- Private household consumption on composite goods is determined by minimising a CDE (Constant Differences of Elasticities) expenditure function. Private household consumption on composite goods from different sources is determined by a CRESH (Constant Ratios of Elasticities Substitution, Homothetic) utility function.
- Government consumption on composite goods, and composite goods from different sources, is determined by maximising a Cobb-Douglas utility function.
- All savings generated in each region is used to purchase bonds whose price movements reflect movements in the price of generating capital.

Producers

Apart from selling goods and services to households and government, producers sell products to each other (intermediate usage) and to investors. Intermediate usage is where one producer supplies inputs to another's production. For example, coal producers supply inputs to the electricity sector.

Capital is an input into production. Investors react to the conditions facing producers in a region to determine the amount of investment. Generally, increases in production are accompanied by increased investment. In addition, the production of machinery, construction of buildings and the like that forms the basis of a region's capital stock, is undertaken by producers. In other words, investment demand adds to household and government expenditure from the representative household, to determine the demand for goods and services in a region.

Producers interact with international markets in two main ways. First, they compete with producers in overseas regions for export markets, as well as in their own region. Second, they use inputs from overseas in their production.

Some detail

- Sectoral output equals the amount demanded by consumers (households and government) and intermediate users (firms and investors) as well as exports.
- Intermediate inputs are assumed to be combined in fixed proportions at the composite level. As mentioned above, the exception to this is the electricity sector that is able to substitute different technologies (brown coal, black coal, oil, gas, hydropower and other renewables) using the 'technology bundle' approach developed by ABARE (1996).
- To minimise costs, producers substitute between domestic and imported intermediate inputs is governed by the Armington assumption as well as between primary factors of production (through a CES aggregator). Substitution between skilled and unskilled labour is also allowed (again via a CES function).
- The supply of labour is positively influenced by movements in the wage rate governed by an elasticity of supply is (assumed to be 0.2). This implies that changes influencing the demand for labour, positively or negatively, will impact both the level of employment and the wage

rate. This is a typical labour market specification for a dynamic model such as DAE-RGEM. There are other labour market ‘settings’ that can be used. First, the labour market could take on long-run characteristics with aggregate employment being fixed and any changes to labour demand changes being absorbed through movements in the wage rate. Second, the labour market could take on short-run characteristics with fixed wages and flexible employment levels.

Investors

Investment takes place in a global market and allows for different regions to have different rates of return that reflect different risk profiles and policy impediments to investment. The global investor ranks countries as investment destination based on two factors: current economic growth and rates of return in a given region compared with global rates of return.

Some detail

- Once aggregate investment is determined in each region, the regional investor constructs capital goods by combining composite investment goods in fixed proportions, and minimises costs by choosing between domestic, imported and interstate sources for these goods via a CRESH production function.

International

- Each of the components outlined above operate, simultaneously, in each region of the model. That is, for any simulation the model forecasts changes to trade and investment flows within, and between, regions subject to optimising behaviour by producers, consumers and investors. Of course, this implies some global conditions must be met such as global exports and global imports are the same and that global debt repayments equals global debt receipts each year.

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Hyperlinks were accessed in February 2012.

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