Trade Policy at the Crossroads - The Indonesian Story

David Vanzetti, Greg McGuire and Prabowo[1]

7th Annual Conference on Global Economic Analysis
The World Bank, Washington, D.C., United States
June 17-19, 2004

Abstract

Following the crises of the late 1990s and the subsequent slowdown of the world economy, many countries in the developed and developing world are at the crossroads in their trade strategy, uncertain whether to advance with trade reforms, to stand still or even to backtrack into protectionism. While the case for liberalisation has been widely accepted as a long- term goal, the gains from trade have not always been forthcoming and macroeconomic crises have exacerbated the situation. The delayed and uncertain benefits of reform, plus the costs of adjustment, the need to offset tariff revenue losses, and the possible benefits of some degree of intervention to foster industrialisation have all contributed to this indecision. Support for the WTO multilateral negotiations now appears half-hearted, and there are even calls for increased protection. Following the failure of multilateral negotiations at Cancún, attention has inevitably turned to regional and bilateral agreements.

Indonesia provides an interesting case study of the potential benefits and costs of alternative trade strategies that are under active consideration in many developing countries. The ASEAN region has recently announced a deepening of its commitments and is considering widening the agreement to include countries such as China, Japan and Korea. A bilateral agreement with the United States is also a possibility. Against this background, Indonesia's options on trade policy range from reversing previous trade liberalisation to actively pursuing bilateral, regional and multilateral initiatives.

The results of a global general equilibrium analysis point to several interesting implications for policymakers. Reverting to protectionism results in economic losses. After undergoing further adjustments, estimated annual gains to Indonesia from a conservative Uruguay Round style outcome within the WTO system adds up to an estimated $380 million (0.22 per cent of GDP). However, annual gains from a completely liberalised ASEAN plus China and Japan, Korea regional trade agreement are estimated at $2.3 billion, again after adjustment. Indonesia could capture half of these benefits by liberalising unilaterally. The major source of the gains from unilateral, regional and multilateral liberalisation is improved efficiency following removal of tariffs on the politically sensitive sectors such as motor vehicles. This improves productivity in many downstream sectors. There are significant trade diversion effects from regional integration, with non-members worse off as a result. The results have implications for other countries having second thoughts about their strategy.

Key words: Trade policy, WTO negotiations, regional trade agreements, Indonesia, ASEAN.

---

1 Trade Analysis Branch, UNCTAD, Geneva, and United Nations Support Facility for Indonesia Recovery, Jakarta. The views expressed are those of the authors and do not necessarily represent the views of their respective organizations nor the member states of the United Nations.

Trade Policy at the Crossroads - The Indonesian Story

1. Which Way Forward?

Multilateral trade liberalisation is a two-edged sword for many countries. The opening up of markets provides a welcome opportunity for the development of exports. On the other hand, it also brings increased competition, not only in export markets but also in domestic markets. To take advantage of market opportunities, resources need to flow from inefficient sectors to those where productivity is greater. The reallocation of land, labour and capital inevitably involves some costs of adjustment, and meanwhile tariff revenues may fall before alternative sources can be implemented. Where capital and labour markets are functioning poorly, and where government administration is poorly developed, the negative effects of trade liberalisation may appear to outweigh the potential but distant benefits, especially in an ailing macro-economy such as has been experienced in Indonesia since the crisis of 1997-98. For these reasons, many countries are having second thoughts about further trade liberalisation.

In the long run, developing countries have little choice but to continue down the liberalisation road as the world becomes increasingly integrated. Liberalisation is recognised as a desirable objective for all economies and WTO Members have committed themselves to moving towards this objective. While openness is the end goal, the real question is how to get there, with the loudest voices – and many vested interests – calling for a standstill of current liberalisation or an increase in protection. The various trade strategy options include increasing protection in selected industries, or doing nothing, through to unilateral, bilateral, regional and/or multilateral liberalisation.

The appeal of winding back liberalisation (that is, increasing protection) is that sensitive industries can be sheltered from foreign competition, per haps on a temporary basis, with the hope that in time protected industries will become competitive. There are examples of industries that have become competitive after government funding (for example, Japanese motor vehicles) but governments often find it difficult to remove the protection. The US steel sector is a painful example. A more compelling argument may be that the externalities of locating industries in clusters, so that subsidising or providing infrastructure or other support for one industry may benefit others. High technology industries may be such an example. However, protecting an industry through border measures often means that users of intermediate inputs have higher costs.

Doing nothing may seem a more attractive option during periods of macro-economic weakness. This avoids the costs of adjustment. Structural adjustment necessitated by technological change or trade liberalisation is one of the biggest problems facing policy makers, and it becomes more difficult as the pace of change quickens. Structural adjustment essentially relates to moving primary factors such as land, labour and capital out of declining industries. There is limited scope for moving land out of agriculture, apart from converting it into forestry. The scope for moving labour out of agriculture is also somewhat limited, as this is likely to involve retraining and relocating resources. Retraining of labour can be a major cost, and many people find it stressful to have to face a period of unemployment and retraining after working in one job for many years. This is a real economic and social cost, albeit difficult to quantify. Sectors with a substantial proportion of aged workers, such as the rice growing sectors of Malaysia or Japan, face serious social and political costs in restructuring, particularly in the absence of social safety nets.

A further justification for doing nothing is concern over a potential fall in tariff revenues, especially where there is a lack of administrative capacity to put in place alternative income, capital, value added or consumption-based taxes.

Nonetheless, liberalisation has benefits that cannot be ignored. Unilateral liberalisation has its own rewards though improved efficiency in the allocation of resources, and many countries have been encouraged to go at least partly down this path, albeit somewhat hesitantly. Removing domestic distortions is important because taxes on imports raise costs to users of intermediate inputs. For example, taxes on motor vehicles raise the cost of transport and make it difficult for export sectors to compete. One approach is a uniform tariff, which removes much of the domestic distortions but leaves in place a distortion between traded and non-traded goods, for example many services industries that, while not directly involved in trade, provide inputs for export industries.

But trade liberalisation by itself is insufficient for sustainable growth, and authors such as Rodrik and Stiglitz have underlined the importance of institution-building. Capital and labour markets need to function so that resources can be moved to more productive sectors. Infrastructure may need to be provided so that countries can physically ship products to new markets. High transport costs are an impediment to an expansion in trade in many countries. Macroeconomic stability is important so that exports are not implicitly taxed by an overvalued exchange rate. The tax system may need to be reformed to move away from a dependence on tariff revenues as tariff rates are reduced. Safety nets need to be in place to

protect workers and encourage entrepreneurs to undertake risky investments. These reforms need to be sequenced in such a way as to avoid undesirable consequences or outright failure.

There is also a lack of consensus about the best path to achieve long-term growth. Development economics is prone to fads, primarily because what works for some economies does not work for others. While a competitive exchange rate, fiscal discipline, trade liberalisation, sound investment climate and secure property rights is considered necessary, it is no longer considered sufficient. Other variables include good governance, low levels of corruption, flexible labour markets, inflation targeting and social safety nets. There is an increasing emphasis on the appropriate institutions, such as well-developed legal and financial systems, as necessary conditions for sustained growth. Furthermore, the empirical evidence is mixed, as some countries (for example, in Latin America) have largely followed these conditions with little apparent benefit, while others (for instance, in Asia) have managed to sustain high growth rates without fulfilling all the conditions.

If there is much to be gained, at least in the longer term, from autonomous liberalisation, then even more may be gained when a number of countries choose to follow the same path simultaneously, creating a synergistic effect. It also makes it easier to "sell" reforms politically at home if other countries are opening their markets at the same time. This is an advantage of the multilateral system, whose rules-based approach provides some protection for small players. The disadvantage is the difficulty in getting agreement. Multilateral agreements tend to be wide but shallow, with the need to incorporate substantial flexibility if a negotiated outcome is to be reached.

The uncertainty of the benefits of more liberalisation is likely to have contributed to the Cancún Ministerial Meeting of September 2003 ending in failure, a lost opportunity.[2] However, apart from critical areas such as agriculture, the so-called Singapore issues (investment, competition policy, government procurement and trade facilitation), and non-agricultural market access, there was also considerable concern about the lack of progress in fulfilling the promises on development issues. However, if the failure at Cancún leads to a better outcome in the future, then it may be seen as a watershed in international economic relations if the development impact of the WTO agenda is given priority over extending the mandate or rule-making for its own sake. It may also be seen as far-sighted if it gives an opportunity for consolidation and building genuine consensus on the future shape of the WTO system. Nonetheless, the lack of momentum in the multilateral negotiations provides an

2 For an analysis, see UNCTAD (2003d).

opportunity to assess the benefits and costs of an alternative trade strategy in developing countries.

However, the blockage at Cancún will inevitably also lead to a reinforcement of the trend since the early 1990s towards the formation of regional trade and integration agreements. Bilateral and regional agreements seem to afford opportunities for faster, deeper liberalisation with selected trading partners. It is much easier to get agreement with a few rather than many countries. The most obvious example of a successful agreement is the European Union. Developing countries are queuing up to obtain access to developed country markets, both in Europe and the Americas. The difficulties with these agreements are the unequal bargaining power between the members, particularly for hub and spoke arrangements where one large economy essentially has bilateral arrangements with several smaller countries.3 The danger is that the larger power excludes products of particular interest to its partners or exacts other policy changes that may be premature or costly for the smaller, developing partner. The recently negotiated Australia-US Free Trade Agreement is an example where sugar was excluded. The EU has mostly excluded agriculture from its network of agreements with the Euro-Mediterranean and Central and Eastern European countries as well as largely requiring conformity with the *acquis communautaire*.

Indonesia provides a useful case study of a country at the crossroads. It has undertaken substantial reforms, especially following the 1997 Asian financial crisis, but is yet to see the expected benefits. As a result there is indecision about the way forward in its trade policy. In the remainder of the paper we examine the options for Indonesia and attempt to draw implications for developing countries more generally. In the next section, an overview is provided of the evolution of Indonesia's trade regime since the 1960s. The structure of the Indonesian economy in relation to existing trade flows and protection levels is examined next. The sectors enjoying or facing the largest protection rates and hence are likely to be most affected by pending changes are agriculture, textiles and motor vehicles. In the following sections, alternative scenarios are described and results from simulations using the GTAP computable general equilibrium model are discussed. The penultimate section discusses timing and sequencing issues for Indonesia in progressing further liberalisation before the concluding section draws implications for policies that may also be of value to other countries facing a similar trade policy dilemma.

3 For a discussion, see Cernat and Laird (2003) and Abugattas (2004) forthcoming.

2. Indonesia at the crossroads

Indonesia has been engaged in a process of wide-ranging economic reforms, including in the area of trade for more than 10 years, under structural adjustment packages agreed with international funding institutions, but there have been important periods of reform and reversals of those reforms for more than 30 years. Average tariffs on merchandise trade have fallen from above 27 per cent in the mid-1980s to around 7 per cent (simple average) today, although there are significant tariff barriers in certain sectors, such as motor vehicles. However, in the wake of the recent crises, applied tariffs on certain agricultural products, including sugar and rice have been raised, and there is a call for further increases in these and other sectors.

The evolution of Indonesia's trade policy regime

In the past 35 years, Indonesia's trade and investment policy has undergone substantial transformation from a closed and protected regime to a more open one. Indonesia has moved from an inward looking import substitution strategy during the oil boom in the 1970s and early 1980s to a more export-oriented economy after the oil bust in the mid-1980s. The 1997 Asian financial crisis led to substantive trade liberalisation reforms as part of meeting IMF conditions. In addition, Indonesia has implemented its commitments under the ASEAN Free Trade Area (AFTA), the Asia Pacific Economic Cooperation (APEC) and the WTO.

While Indonesia is now one of East Asia's most liberal trade regimes, the road to this status has been long and winding, with episodes of trade liberalisation followed by increased protection and vice versa. Trade reform has not tended to be an ongoing reform process but reacts to the external developments of the day with these reactions closely tied to the price of oil (Basri and Hill, 2004). During the period of high oil prices, protection increased as the economy relied on oil revenues to stimulate economic growth. During low oil prices major trade liberalisation reforms were implemented as the government realised the need to diversify away from the reliance on oil revenue to stimulate economic growth.

Indonesia's road to liberalisation: The 1960s to the 21st century

Before the period of rapid economic growth from 1967 to 1997, the performance of the Indonesian economy under the Soekarno administration had been very poor and Indonesia was considered by many as a 'basket case'. Decades of poor social indicators and economic growth were a stimulus for drastic action from the then new 1967 Soeharto regime. Trade,

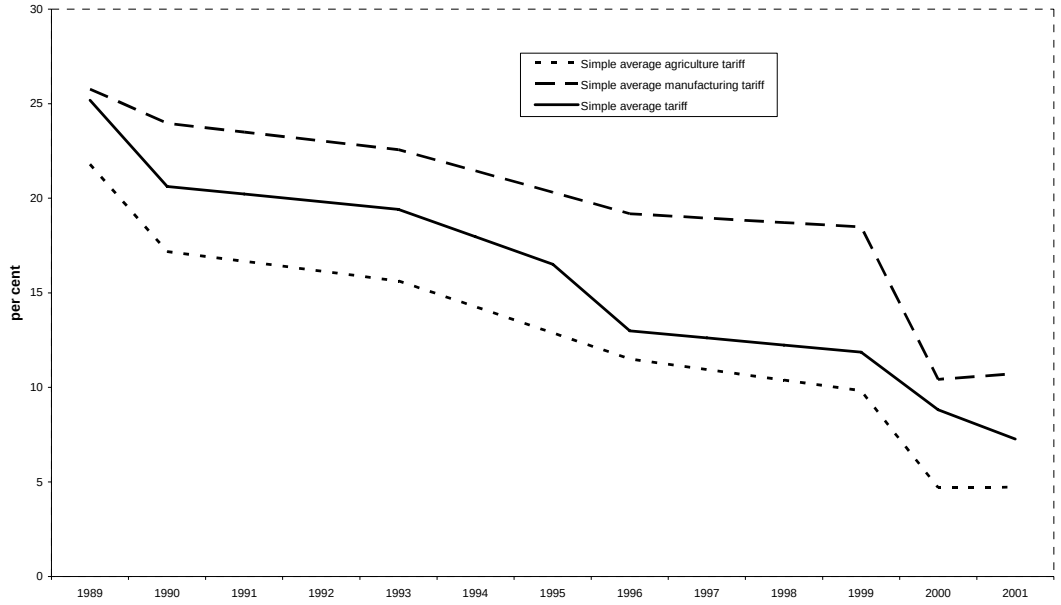
along with investment, policies were liberalised when Soeharto came to power. Import licensing was dismantled and a new 'export bonus' scheme introduced. In 1970, the government introduced a major trade policy package, which included simplification of exports and import procedures. The elimination of international capital controls marked an important moment in Indonesia's capital account policy (Aswicahyono and Feridhanusetyawan, 2003).

However, this period of trade liberalisation was shortlived. Indonesia suddenly received large windfall gains from increasing oil prices during the 1970s from which it could rely to stimulate economic growth. The government was unwilling to institute further trade liberalisation reforms as increased foreign exchange reserves could be used to finance development. Protection increased and Indonesia adopted an import substitution strategy. In addition, the government intervened in the market to direct state owned banks to provide subsidised credit for favoured clients, directed production in heavy industries through State owned enterprises and implemented complex regulations aimed at promoting industrial policy objectives. In the early 1980s, protection was further increased (Feridhanusetyawan 2001). A new import system was introduced which controlled imports through quantitative restrictions. This substantially limited the capacity to import freely and provided many opportunities for vested interests to capture rents.

Indonesia's first major trade reforms occurred in the mid-1980s when the 1985 recession and 1986 collapse of oil prices halted the protectionist tendencies and prompted trade reforms. The Government lowered tariff ceilings to 60 per cent, reduced the number of tariff levels from 25 to 11 and converted several import licences (which at their peak covered 43 per cent of tariff lines) into tariff equivalents (DFAT, 2000). The simple average tariff rate was reduced from 27 per cent in 1986 to 20 per cent to 1991. Other reforms abolished import monopolies, simplified customs and outsourced substantial customs responsibilities. These reforms, combined with industrial and investment reforms, underpinned Indonesia's strong economic growth in the late 1980s and 1990s.

Trade liberalisation slowed in the early 1990s and the simple average tariff rate remained steady. Tariffs increased on some chemical products and the national car scheme was made exempt from domestic luxury tax and protected by an extensive range of tariff and non-tariff measures. These developments fuelled doubts about the resolve of the Soeharto Government to continue trade reform. By the crisis of 1997, the simple average tariff rate on agriculture and industrial goods was stagnating at around 13 per cent (refer to Figure 1).

Figure 1 Declining Indonesian tariffs[a]



a The World Bank WITS database does not provide a complete time series and data for some years have been estimated.
Source: WITS (2003).

When the 1997 Asian financial crisis set in, the government chose not to close itself off to the rest of the world but sought deeper integration by accelerating trade liberalisation. Trade liberalisation reforms were intensified at the start of the IMF program with the highlights being the elimination of non-tariff measures for agricultural products and measures to protect the national car scheme. During the crisis, the government committed to removing all import licenses, including import licenses that fell outside previous WTO commitments. The government introduced competition in agricultural products by removing import-licensing requirements on commodities controlled by BULOG, the national logistics agency. The government also opened rice to import competition. While the general trend since the crisis has been further liberalisation, protection has recently increased in some areas. However, this increase in protection is not taking the form of highly visible tariffs but highly distortionary and opaque non-tariff measures. The coverage of import prohibitions was increased from 7 to 27 tariff lines and while the coverage of import licensing was increased from 27 to 1027 lines between 2001 and 2003 (Kim, 2004).

The renewed liberalisation efforts in the 1990s were supplemented by international commitments under AFTA, APEC and the WTO. Strong political will to deregulate paved the way for Indonesia's active participation in the formation of the AFTA by 2008, a target later bought forward to 2003 and then to 2002 (Feridhanusetyawan and Pangestu, 2003). In 1994,

the year it hosted the APEC meeting in Bogor, Indonesia emerged as a champion of concerted unilateral liberalisation, giving APEC the legacy of the Bogor goals of free and open trade and investment by 2010 for developed countries and 2020 for developing countries. In 1995, the Government committed for the first time to a schedule of tariff reductions that anticipated a maximum tariff rate of 10 per cent by 2003. Non-tariff measures were reduced and tariffs covered 65 per cent of tariff lines in 1995. Despite these 1995 commitments many of the actual tariff reductions were behind their targets in 1999 (DFAT 2000). However, sensitive products whose production was closely connected to the government – chemicals, motor vehicles and steel – continued to be largely untouched by the trade reforms.

Many of the areas excluded in the past from major trade liberalisation continue to be excluded (refer to Table 1). Tariff peaks in these occur in agriculture and manufacturing areas for different reasons. Agriculture protection reflects concerns over food security and the belief that this concern can best be met by achieving self-sufficiency in staple commodities, especially rice (WTO, 2003).[4] Agriculture is relatively important to the Indonesian economy, employing 45 per cent of the labour force but producing only 17 per cent of national output (Banerjee and Siregar, 2002). Agricultural bound tariffs are very high, around 65 per cent in trade weighted terms, and significantly exceed applied tariffs that averaged 7 per cent before the recent increases in sugar and rice. There are high applied tariffs on rice (now around 30 per cent), meat (around 20 per cent), bananas (20 per cent), skim milk powder (25 per cent), tomatoes (25 per cent) and roasted coffee (25 per cent) (UNCTAD, 2003a).[5] Because bound tariffs are often more than twice applied levels, negotiated reductions of 50 per cent or less are likely to have little economic impact in the agricultural sector.

Much of the high protection in the manufacturing sector reflects the past and present ability of powerful interest groups – conglomerates and state trading enterprises – to influence government policy. Chemicals, motor vehicles and steel have been largely untouched by the major trade liberalisation reforms of the mid-1980s and 1997. Protection in the automobile

4 Ironically, policies to enhance food security may worsen poverty. The current tariff on rice is 430 rupiah per kilogram or about 30 per cent ad valorem. The poor spend about 30 per cent of their food expenditure on rice and about 80 per cent of consumers are non-producers (BPS 2001). Thus, the price of rice is a key determinant of poverty. If the 30 per cent tariff is increased and passed on to domestic consumers, the poor are likely to be worse off as a result of the food security policy. Although, Indonesia is the world's largest rice importer in terms of value, the increase in import prices if Indonesia obtained additional supplies from abroad is in the order of 2 to 3 per cent.

5 The ATPSM database is downloadable from UNCTAD at www.unctad.org/tab. A more detailed breakdown of agricultural tariffs is available from the AMAD database, www.amad.org. Applied tariff estimates may change from year to year because of changes in the prices used to convert specific tariffs to ad valorem equivalents.

industry, mainly a legacy of Soeharto family connections, and steel and chemicals reflects the entrenched interests of large state controlled enterprises. In addition to tariffs, these sectors are also protected by a wide range of non-tariff measures in the form of import prohibitions and licensing.

Table 1 Little change in tariff protection in sensitive sectors since the crisis (per cent)

ISIC	*Sector*	*1996*		*1998*		*2002*	
		Tariff %	Range %	Tariff %	Range %	Tariff %	Range %
3121	Food products	15	5-170	13	5-170	6	5-170
3131	Distilling, rectifying, blending spirits	170	170-170	170	170-170	170	170-170
3132	Wine industries	135	5-170	137	5-170	137	5-170
3133	Malt liquors and malt	17	5-40	17	5-40	17	5-40
3511	Industrial chemicals	6	0-30	5	0-30	4	0-30
3513	Resins, plastics and man-made fibres	13	0-40	12	0-35	8	0-30
371	Iron and steel	8	0-30	8	0-30	7	0-25
3819	Manufacture of fabricated metal products	14	0-30	13	0-25	10	0-20
3843	Manufacture of motor vehicles	48	0-200	52	0-200	21	0-80
3844	Manufacture of motorcycles and bicycles	42	0-150	42	0-150	19	0-60
3849	Manufacture of transport equipment	30	0-30	25	25-25	20	20-20

Source: WITS/TRAINS (2003).

In summary, over the past thirty-five years, Indonesia has moved to a more liberal trade regime but it has not being without periods of increasing protection and the direction of trade liberalisation in the short to medium-term has again come into question. While trade liberalisation is a desirable long-term objective and has been strongly espoused by Indonesia at international forums such as AFTA, APEC and the WTO, the real question is how should Indonesia get there. Indonesia is already going forward by meeting international commitments. Some are frustrated with the little or no return on the post-crisis reforms and argue that Indonesia should go back and increase protection. Others argue that going forward faster with further liberalisation will shift resources to areas of comparative advantage and stimulate economic growth. Some argue for a standstill or to stop liberalisation to give the economy time to adjust to the historic post-crisis reforms before undertaking further reforms. Further questions arise about which approaches to progress further liberalisation – unilateral versus bilateral versus regional versus multilateral.

3. Indonesia's Trade and Barriers in Export Markets

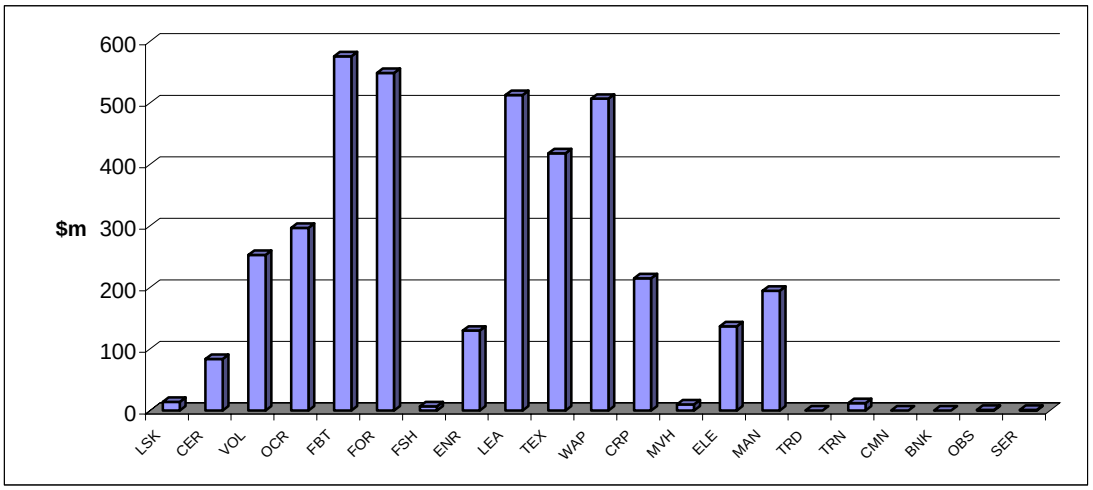
Indonesian trade is predominantly North-South with a low proportion of South-South trade. Since special and differentiated treatment applies to developing countries at the WTO negotiations, this has implications for Indonesia negotiating strategy. In 2002, around 39 per cent of Indonesia's goods and services imports are from developed countries (WITS/TRAINS, 2003). The major sources of imports are from Japan ($4.4 billion), European Union ($3.9 billion), and the United States ($2.6 billion). Indonesia's South East Asian neighbours (Malaysia, Philippines, Singapore, Thailand and Vietnam) collectively import $4.6 billion from Indonesia. Japan provides 62.8 per cent of the motor vehicles, whereas the European Union has a stranglehold on services, particularly business services.

In terms of destination of Indonesian exports, two thirds of Indonesia's exports are to developed countries. The major regions are the European Union ($8.1 billion), Japan ($11.8 billion) and the United States ($7.5 billion). Exports to the South East Asian region are less than ten per cent of the total at around $9.4 billion. A distinguishing feature of Indonesian trade as compared to other developing countries is its reliance on the export of oil and gas. As the only South-East Asian member of OPEC, Indonesia exports $12.3 billion in coal, oil and gas and another $1.9 in petroleum and coal products. Agriculture exports, mainly vegetable oils, are $6.6 billion and manufacturing exports, which are dominated by office machinery and telecommunications equipment and textiles and clothing, are $34.2 billion.

In services, Indonesia exported around $6.6 billion and imported $17.1 billion giving a deficit of around $10.5 billion in 2002 (UNCTAD, 2003c). Indonesia has a structural deficit in services from importing these higher value products for which it is unable to produce itself.

Of greater interest are the barriers facing Indonesia in its export markets. Total goods and services exports from Indonesia amount to $55.8 billion (in 2000) and the major contributors to this are timber and paper products ($7.6 billion), coal, oil, gas and derivatives ($14.6 billion) and textiles and apparel ($6.8 billion). The implicit tariff revenues charged against these exports are textiles and apparel ($1490 million), vegetable oils ($265 million), other foods ($630 million), and timber and paper products ($577 million). These are shown in Figure 1 and in more detail in Annex Table A1 (excluding barriers within the ASEAN region which are to be removed). A combination of significant tariffs with substantial trade flows generates these large numbers and indicates where the gains from liberalisation might lie.

Figure 2 Tariff barriers facing Indonesian exports



Source: GTAP database.

4. The Road Ahead for Trade Liberalisation – Six Scenarios

Six scenarios are analysed here to assess where Indonesia's interest lie: (i) reversal – that is, increasing protection; (ii) standstill – doing nothing while others liberalise; (iii) unilateral – liberalising while trading partners maintain their policies; (iv) bilateral – free trade agreement with the United States; (v) regional, – an expansion of ASEAN to China, Korea and Japan; and (vi) multilateral – a WTO proposal as it may eventuate. Some of these scenarios are politically unobtainable at the moment, but are useful to illustrate the value of the various options being faced by Indonesia and indeed other developing countries in a similar situation. Indonesia still has room to move in its trade policy but important questions arise on how to proceed – go back, standstill, go forward faster, wider or deeper.

However, as for other countries, there are some limitations on the options facing Indonesia: the scope for further trade reforms must be considered in the context of existing trade commitments, some of which are legally binding. In Indonesia's case, the room it has to move, without negative implications, depends on its commitments under ASEAN, APEC and the WTO. It can obviously accelerate liberalisation at a faster pace with no implications, but is likely to be more limited if it chose to standstill or go back. The scope under ASEAN, which covers about 20 per cent of Indonesia's trade, is limited. Indonesia has already locked into legally binding tariff reductions, with few exceptions, as part of AFTA. ASEAN has expressed its intention to achieve zero tariffs on all trade between founding members by 2015. There is more flexibility under APEC and the WTO. Indonesia has a number of non-

binding commitments under APEC, which is seeking to achieve free and open trade and investment by 2020 for developing economies. Under the WTO, Indonesia is progressively liberalising but for some products where the bound rates are significantly higher than the applied rates there is significant scope to increase the applied rates.

The six scenarios are somewhat speculative because in each case the terms are subject to negotiation. These scenarios involve liberalisation of sectors, such as sugar, motor vehicles and cement that in the past have been considered politically sensitive. It remains to be seen whether these would be quarantined from future liberalisation. If so, the estimated impacts would need to be reconsidered. Table 2 provides an overview the specifications for each scenario.

Reversal

There has been much discussion in Indonesia that liberalisation has gone too far and in fact ought to be wound back. That is, protection should be increased, particularly in the sensitive sectors such as chemicals, motor vehicles, steel and textiles. In recent years, further liberalisation of certain agricultural commodities has aroused calls for protection to be increased. For example, rice farmers concerned about the market penetration of lower cost, foreign rice called for rice tariffs to jump from 30 per cent to between 90 and 120 per cent (DFAT, 2000). Sugar industry representatives have also argued that the 20 to 25 per cent tariff on sugar was too low compared with some developed country tariffs of 14 to 240 per cent (Bisnis Indonesia, 2000). These pressures for increased protection are simply modelled as a 50 per cent increase in specific sectors.

Standstill

As Indonesia has already undertaken more liberalisation than many other countries, it could consolidate its position by keeping its applied tariffs unchanged while other countries pursued liberalisation. In recent years, the voices have also been loud to maintain the existing level of liberalisation. Steel industry representatives, led by the state owned Krakatau Steel, argue strongly to maintain indefinitely steel tariffs at 25 per cent, claiming Japanese, Chinese and Korean imports are often dumped (CSIS, 2000). The petrochemical industry, the country's largest ethylene producer, opposes liberalisation and has sought to maintain its tariff (Jakarta Post, 2000). In a modelling context, these pressures are simulated by a WTO Uruguay Round scenario (see below under Multilateral) without participation from Indonesia.

Unilateral

Some countries have followed the path of liberalising completely. Indeed, Indonesia has gone much of the way down this path. Indonesia has pursued many of the major trade reforms in the past three decades on a unilateral basis. The major trade and investment reforms of the mid-1980s, the implementation of the seven-year tariff reduction schedule committed in 1995 and the post crisis reforms under the guidance of the IMF were all pursued unilaterally. While also being in line with regional and multilateral obligations, they have often gone beyond international commitments. As part of the IMF programme, Indonesia adopted unilateral reforms for financial and other services that substantially exceeded its WTO commitments. Indonesia has also committed to further voluntary unilateral trade liberalization within APEC. Thus, this scenario involves Indonesia completely removing its remaining protection while other countries retain their current levels. This effectively shows the opportunity cost of maintaining protection.

Bilateral - Indonesia- US Free Trade Agreement

At present, the United States is focusing on regional rather than multilateral trade agreements, and recently concluded bilateral agreements with Singapore and Australia, and is currently in discussion with Thailand. Under this scenario, tariffs on agricultural and industrial products between the United States and Indonesia are completely removed. However, it must be kept in mind that the United States appears reluctant to fully open its agricultural market to any significant degree. Once again, the simulation represents the scope of the potential gains.

Regional - ASEAN+3

The regional scenario involves elimination of tariffs between the current ASEAN plus Japan, China and Korea or ASEAN+3. Within the region, Indonesia has substantial trade ($13 billion) with Japan so there are significant gains from liberalisation from a preferential trade agreement that includes this country. Indonesian exports mainly forest and energy products to Japan. However, processed food exports attract duties of more than 30 per cent. In the other direction, Indonesian tariffs on imports of Japanese motor vehicles amount to $435 million. Removal of these tariffs would lower transport cost in many sectors and have benefits throughout the economy. A similar situation applies to vehicle imports from Korea, where average duties are higher still.

The opening of the Chinese economy affects Indonesia in conflicting ways. The significant size and growth in China's economy provides a potentially major market for exports from Indonesia and other Asian neighbours with the advantage of proximity. In addition, Indonesia will be able to source many cheaper intermediate and consumer goods from China. However, Indonesia will also experience competition from China in its export markets, for example in labour-intensive exports, including textiles and clothing.

Indonesia already has a foothold in these this export market. ASEAN members are increasingly seeking co-operation with non-members. The ASEAN+3 members agreed in November 2002 to study and formulate options to establish an East Asia Free Trade Area gradually (WTO, 2003). This obviously provides opportunities for Indonesia to increase the level of cooperation and expand its trade in an expanded ASEAN.

This scenario assumes that trade between the additional three countries is freed up. The trade between these three countries is much more significant than trade with and within ASEAN. Furthermore, it is difficult to imagine Japan and Korea opening their agricultural markets as postulated. In that sense, this scenario represents the potential rather than probable gains.

Multilateral

Indonesia has stated its commitment to the WTO and actively participates in the multilateral system. It is a member of the Cairns Group but is currently less enthusiastic than other members in pressing for reform. As a mid-ranking developing country it has limited ability to influence the outcome, but it has plenty of flexibility to raise applied tariffs on sensitive agricultural products and maintain tariffs on some industrial products. The WTO proposal as simulated here is a continuation of the Uruguay Round, essentially a fallback position and the least that could reasonably be expected at some point despite the failure of Cancún. However, this specification does not include any attempt at harmonisation of tariffs as agreed at Doha. The simulated cuts are based on the specified minimums, that is, 15 per cent in developed countries and 10 per cent in developing countries.[6] The cuts are implemented against applied rates. Where these are different from bound rates, an overestimation of the cuts occurs.

6 This differs from a recent study of Indonesian study of trade liberalization by Feridhanusetyawan and Pangestu (2003) who assumed the full tariff reductions applied to all agricultural and industrial tariffs. Their estimated welfare gains for Indonesia ($1.47 billion) are significantly higher as a result.

In each scenario the tariffs between the current ASEAN members are removed prior to the simulation. These cuts have been agreed, if not implemented, and it is useful to remove their influence to assess the impacts of further liberalisation.

Table 2 Alternative trade liberalisation scenarios

Reversal	50 per cent **increase** in tariffs on vegetable oils, other crops (mainly sugar), leather, textiles, apparel, chemicals, rubber & plastics, and motor vehicles.
Standstill	No change in Indonesia. As for Multilateral scenario for other countries.
Unilateral	Elimination of Indonesian agricultural and industrial tariffs. No change elsewhere.
Bilateral	Elimination of tariffs in agriculture and industrial trade between Indonesia and the United States. No reductions in services, domestic support or export subsidies.
Regional	Elimination of tariffs in agriculture and industrial trade between ASEAN countries and Japan, China and Korea. No reductions in services, domestic support or export subsidies.
Multilateral	15 per cent reduction in applied tariffs in agricultural and industrial sectors in developed countries. Two third reductions in developing countries. No reductions in services, domestic support or export subsidies.

The big black box

Simulations are undertaken using the GTAP model with the version 5.4 database. The database has 78 countries and regions and 57 sectors that are aggregated to 20 regions and 21 commodities as shown in Table 3 to reflect the trade interests of Indonesia. GTAP is a general equilibrium model that includes linkages between economies and between sectors within economies. Industries are assumed to be perfectly competitive and are characterised by constant returns to scale. Imports are distinct from domestically produced goods as are imports from alternative sources. Primary factors are substitutable but as a composite are used in fixed proportions to intermediate inputs. The database includes tariffs, export subsidies and taxes, subsidies on output and on inputs such as capital, labour and land. Border measures are specified bilaterally, so the impact of preference erosion can be ascertained. This makes the model suitable for analysing preferential trade agreements.

Table 3 Country and commodity coverage

Regions	Sectors
European Union	Livestock products
USA	Cereals
Japan	Vegetable oils
China	Other crops
Korea	Food, beverages & tobacco
India	Forest products
Indonesia	Fisheries
Malaysia	Energy
Philippines	Leather
Singapore	Textiles
Thailand	Apparel
Vietnam	Chemicals, rubber & plastics
Taiwan	Motor vehicles
Rest of Asia	Electronic
Australia	Manufactures
Latin America	Trade
Sub-Saharan Africa	Transport
Central and Eastern Europe	Telecommunications
Other developed	Banking
Rest of World	Other business services
	Other services

5. Impacts

The most significant result from the simulations is the very substantial potential gain from regional liberalisation within an extended ASEAN grouping that includes Japan, China and Korea and the losses from *standing still* or *going back*. A second significant result is the trade diversion from bilateral and regional integration, adding to the potential gains for participants in such an arrangements and resulting in comparative static losses for third countries. (However, to the extent that such an arrangement stimulated growth in the region then there would also be a dynamic effect that could benefit third countries). We now look in some detail at the effects on welfare (essentially on GDP), followed by an examination of estimated changes in exports, imports and government revenues, variables that may be of greater interest to negotiators. Finally, although the model fails to capture the costs of moving resources from one sector to another, the changes in output by sector indicate where the changes would occur and how deep these might be.

Welfare

Welfare changes capture the impact on consumers as well as changes in savings and government revenue, and, therefore, provide a summary of the overall effects of the policy scenarios. The welfare results by region are shown in Table 4 for each scenario. Indonesia loses $470 million from *going back* on liberalisation in the sensitive sectors, that is, welfare losses derive from re-introducing protectionism and undoing the reforms of the last 10-15 years. A *standstill*, involving keeping applied rates at their 2001 levels while other WTO members liberalise, results in very minor gains of only $121 million instead of $380 million under the conservative "Multilateral" scenario in which Indonesia also takes part. However, if Indonesia were to liberalise unilaterally, it could potentially reap estimated gains of $1,599 million. Of the regional options, Indonesia gains $1,540 million from a removal of tariffs with the United States, but regional integration with Japan, Korea and China has the greatest scope for gains of $2,720 million. These gains exceed the multilateral gains because of the greater depth of integration.

A feature of the regional scenario is the significant comparative static losses to non-members of $12.7 billion. All non-members suffer welfare losses. There is a 6 to 8 per cent increase in trade among potential members but this is at the expense of trade with non-members. See the following section for further details.

The bilateral result is surprising. An FTA with the United States makes many non-member countries worse off. The United States itself is also worse off by $293 million per year. The allocative efficiency effects (-$110 million) and the terms of trade effects (-$165 million) are both negative for the United States. Partial liberalisation heightens the remaining distortions in the agriculture, chemicals, rubber and plastics, electronics and other manufacturing sectors. Resources flowing out of the textiles, leather and apparel sectors increase the aggregate distortions in other sectors. There are also negative terms of trade effects in the textiles and apparel sectors as export prices fall.

Table 4 Change in welfare relative to base

	Reversal	Standstill	Unilateral	Bilateral	Regional	Multilateral
	$m	$m	$m	$m	$m	$m
European Union	-53	1957	58	-328	-3028	1977
USA	-59	-2041	221	-293	-4408	-2010
Japan	-47	6566	73	-311	8481	6573
China	19	3617	-89	-423	2204	3613
Korea	-95	1914	1467	-61	4355	1995
India	2	1714	-7	-59	-231	1713
Indonesia	**-470**	**121**	**1599**	**1540**	**2720**	**380**
Malaysia	11	137	-81	-6	644	128
Philippines	20	380	-54	-47	359	373
Singapore	17	98	-60	-13	252	89
Thailand	31	483	-93	-38	-166	470
Vietnam	0	394	-22	-5	987	393
Taiwan	-7	456	33	-58	-1279	459
Rest of Asia	3	211	-13	-65	-226	210
Australia	-11	235	53	6	-630	243
Latin America	8	191	-85	-201	-921	186
Sub Saharan Africa	-3	324	-29	29	-629	323
Central and Eastern Europe	7	1161	-39	-11	-148	1157
Other developed	-8	2493	-4	-2	-460	2494
Rest of World	-13	625	-24	109	-729	628
Total	-648	21037	2906	-238	7146	21394

Source: GTAP simulation.

Turning to Indonesia specifically, global gains of $380 million from the WTO scenario represent an increase in income of 0.22 per cent per year. These derive from improved allocative efficiency rather than terms of trade effects. These benefits of improved resource allocation amount to $417 million, of which $300 million accrue in the sensitive motor vehicle sector and $65 in the leather, textiles and apparel sectors. The terms of trade effects are negative, and amount to some $51 million. There is an increase in the price of exports of vegetable oils, crops other than cereals, processed food and beverages, forest products, energy, leather and apparel, but there are losses in textiles, a sector in which gains might have been expected. The increases in export prices, which contribute $180 million to welfare gains, are more than offset by price rises on imports of motor vehicles and manufactured goods.

The regional scenario seems more promising for Indonesia. Most of the $2720 million in welfare gains are generated by an improved allocation of resources rather than terms of trade effects. Efficiency gains totally $2362 million are mainly derived in the motor vehicles sector ($2112 million). The terms of trade effects, contributing $348 million to Indonesia annual welfare gain, are mainly in the agriculture sectors. Export prices of textiles and motor vehicles fall. There are also import price rises in the motor vehicles and manufacturing sectors, contributing negatively to welfare effects.

Exports

Trade liberalisation increases imports and by definition global exports must match, but the gains in trade vary greatly between regions and sectors. Changes in the value of exports are shown for all regions in Table 5. Following regional integration Indonesian exports to the Japan, Korea and China increase by $6.0 billion but decrease by $1.6 billion to other countries, including a decrease in $0.5 billion to existing ASEAN countries with which complete liberalisation is assumed to have occurred. In total, Indonesian exports increase by 8 per cent. The major beneficiary of regional integration appears to be Vietnam, where exports increase 15 per cent, driven by a $2.0 billion increase in the apparel sector. These additional exports go mainly to Japan and (non-member) the EU.

Table 5 Change in value of exports relative to base

	Reversal	Standstill	Unilateral	Bilateral	Regional	Multilateral
	%	%	%	%	%	%
European Union	0	-0.37	0	-0.02	-0.29	-0.36
USA	-0.01	1.65	0.04	0.24	-0.51	1.65
Japan	-0.01	-2.15	0.05	-0.01	6.06	-2.15
China	0.01	0.94	0	-0.2	8.32	0.94
Korea	-0.05	0.64	0.71	-0.01	5.18	0.68
India	0	0.94	0.02	-0.05	-0.32	0.94
Indonesia	**-1.24**	**0.2**	**7.36**	**4.58**	**8.51**	**0.84**
Malaysia	0.01	0.04	-0.06	-0.03	2.63	0.03
Philippines	0.05	2.91	-0.07	-0.1	3.77	2.89
Singapore	0.01	-0.35	-0.1	-0.01	0.85	-0.36
Thailand	0.04	0.31	-0.08	-0.03	6.64	0.29
Vietnam	0.02	2.29	0.03	-0.02	15.04	2.29
Taiwan	-0.01	0.39	0.03	-0.04	-1.33	0.4
Rest of Asia	0.01	1.67	-0.04	-0.15	-0.39	1.67
Australia	-0.01	0.6	0.09	0.01	-0.8	0.61
Latin America	0	1.89	0	-0.07	-0.17	1.89
Sub Saharan Africa	0	1.5	0	0	-0.37	1.5
Central and Eastern Europe	0	0.52	0	-0.01	-0.24	0.52
Other developed	0	-0.39	0	-0.02	-0.16	-0.39
Rest of World	0	0.7	0	0.01	-0.28	0.7
Total	-0.01	0.18	0.09	0.05	0.98	0.19

Source: GTAP simulation

Of interest to non-members is the degree of trade diversion. For example, imports into Japan are estimated to increase by $34 billion of which $20 billion are sourced from China and $9 billion from Korea. However, there are falls in imports from the USA ($2 billion), Australia (0.46 billion) and Latin America ($0.69 billion). In each case the diverted trade is mainly livestock, cereals and food and beverage products, but there is also some substitution of leather, textiles and apparel.

Imports

Imports tell a similar story to exports (Table 6). Indonesian imports would decrease 1.4 per cent following the imposition of higher tariffs (the reversal scenario), but would increase

nearly 10 per cent under the more ambitious scenarios (unilateral and regional). The scenario of WTO multilateral liberalisation leads to a modest 0.85 per cent increase in imports.

Table 6 Change in value of imports relative to base

	Rever-sal	**Standstill**	**Uni-lateral**	**Bilateral**	**Regional**	**Multi-lateral**
	%	%	%	%	%	%
European Union	0	-0.97	-0.01	-0.02	-0.52	-0.97
USA	0	-0.77	0.01	0.24	-1.03	-0.76
Japan	-0.01	3.21	0	-0.01	8.45	3.22
China	0.01	2.96	-0.01	-0.2	8.86	2.96
Korea	-0.05	1.79	0.75	-0.01	7.78	1.84
India	0	4.66	-0.02	-0.05	-0.8	4.66
Indonesia	**-1.4**	**0.04**	**9.48**	**4.58**	**9.01**	**0.85**
Malaysia	0.01	-0.12	-0.05	-0.03	3.92	-0.13
Philippines	0.06	3.33	-0.1	-0.1	4.41	3.3
Singapore	0.01	-0.15	-0.11	-0.01	0.86	-0.17
Thailand	0.04	1.06	-0.09	-0.03	9.78	1.04
Vietnam	0.01	5.21	-0.1	-0.02	22.98	5.2
Taiwan	-0.01	0.48	0.03	-0.04	-1.54	0.49
Rest of Asia	0.02	3.11	-0.08	-0.15	-0.98	3.1
Australia	-0.02	0.87	0.09	0.01	-1.43	0.88
Latin America	0.01	0.77	-0.03	-0.07	-0.56	0.77
Sub Saharan Africa	0	1.51	-0.04	0	-0.81	1.51
Central and Eastern Europe	0.01	0.99	-0.03	-0.01	-0.42	0.99
Other developed	0	-0.28	-0.01	-0.02	-0.37	-0.28
Rest of World	0	1	-0.03	0.01	-0.66	0.99
Total	-0.01	0.18	0.09	0.05	0.98	0.19

Source: GTAP simulation

Government revenues

Many developing countries are concerned that trade liberalization will have a significant adverse impact on government revenues because tariff revenues make up a substantial contribution to public revenue. At present in Indonesia government revenue is around $29 billion, of which taxes contribute $18.0 billion, (ADB, 2001). Tariff revenue in Indonesia is estimated in the GTAP database at $3.5 billion.[7] However, actual tariff revenues have been

7 In the GTAP database tariff revenue is calculated from trade flows and bilateral tariffs. These estimates may differ from reality because of undeclared imports, incorrect duties applied and other administrative problems.

independently estimated at around $1.5 billion (WTO, 2003). Corruption, rampant smuggling and the many exemptions from the *normal* tariff all contribute to the actual tariff revenues being more than 50 per cent below nominal tariff revenue. Higher tariffs can also provide incentives for more widespread smuggling and corruption so that beyond a certain point increasing tariffs no longer increases revenue.

The percentage changes in tariff revenues following the various trade policy reforms are shown in Table 7. The reversal scenario raises tariff revenues while the unilateral reform eliminates them. The WTO multilateral scenario leads to a moderate 5 per cent fall in revenues and the regional integration results in a 65 per cent ($2.3 billion) reduction in tariff revenues. In reality, the increased revenues from an increase in protection will obviously be lower for the reasons mentioned above.

Alternative sources of revenue will need to be raised for the implementation of scenarios where tariff revenue falls significantly, especially since Indonesia will continue to have a large debt overhang for many years to come as a result of policies in response to the crisis. Thus, other ways of raising revenue must be found. Existing taxes need to be raised, tax bases broadened, collection and administration improved, and tax evasion eliminated. But this is not as simple as it sounds. Indonesia has a very low tax to GDP ratio compared with other countries with a similar level of development. For years, Indonesia has been complacent in this area, mainly due to easy availability of oil and gas revenue. The only occasion it took some measures to improve its tax measure was when oil prices declined in the early 1980s (Chowdhury, 2002).

Table 7 Indonesian tariff revenues under alternative scenarios

Reversal	Standstill	Unilateral	Bilateral	Regional	Multilateral
%	%	%	%	%	%
5.2	0.4	-98.9	-8.8	-65.3	-5.6

Source: GTAP simulation

Sectoral effects

The success or failure of a particular trade strategy may depend on the impact in specified sectors. Reform may be resisted if sensitive sectors appear vulnerable. In many cases flexibility is built into bilateral, regional or multilateral negotiations to ensure a mutually acceptable outcome. For this reason, it is useful to know the likely sectoral impacts. Furthermore, these impacts also have implications for labour use and structural adjustment

policies. Changes in output are shown in Table 8 and changes in exports by sector are presented in Table 9.

A further consideration is the possibility of supply-side constraints on producing the projected increase in output. This may involve problems with supplies of raw materials, water, environmental concerns, infrastructure and perhaps quality considerations. The model takes account of the limited availability of labour, capital and land and intermediate inputs but not other potential constraints. Among the larger positive numbers for Indonesia are cereals and processed food, where output increases of 11 and 8 per cent are projected for the regional scenario.

Table 8 Change in value of Indonesian output

	Reversal	**Stand still**	**Uni lateral**	**Bilateral**	**Regional**	**Multi-lateral**
	%	%	%	%	%	%
Livestock products	-0.21	0.07	-0.57	0.33	-0.46	0
Cereals	-0.11	0.07	0.02	-0.49	10.77	0.08
Vegetable oils	0.44	-0.59	-0.42	-3.9	0.88	-0.73
Other crops	0.14	0.07	-0.21	0.77	-1.29	0.02
Food, beverages & tobacco	-0.18	0.47	-0.58	-0.34	7.59	0.41
Forest products	-0.34	-0.05	1.91	-4.34	5.29	0.05
Fisheries	-0.09	0.11	-0.01	-0.4	1.71	0.12
Energy	-0.06	0.07	0.45	-2.34	-0.82	0.07
Leather	-2.34	3.57	13.67	67.88	1.92	4.94
Textiles	-1.72	2.61	5.76	8.15	-0.37	3.21
Apparel	-4.44	3.17	13.6	29.49	0.53	4.69
Chemicals, rubber & plastics	0.17	-0.26	-0.15	-0.73	-1.64	-0.3
Motor vehicles	10.3	-0.01	-48.91	-3.56	-53.15	-4.23
Electronic	-0.33	0.62	3.21	-5.38	-3.04	0.84
Manufactures	-0.23	0.04	0.55	-2.81	-1.5	-0.01
Trade	-0.21	0.06	0.71	0.26	0.65	0.16
Transport	-0.24	-1.2	1.7	-4.26	-1.38	-1.14
Communications	-0.21	-0.49	0.79	-0.95	-0.23	-0.41
Banking	-0.17	0.02	0.59	0.83	0.46	0.09
Other business services	-0.18	-0.6	0.92	-1.66	-0.28	-0.52
Other services	-0.23	-0.07	1.48	0.71	1.45	0.11
Total*	0.1	-0.07	-2.09	-3.22	1.41	-0.16

Source: GTAP simulation. * Total output measured as value of Gross Domestic Product.

Changes in Indonesian exports by sector are shown for the various scenarios in Table 9. Under the WTO scenario the largest changes, in value terms at least, are in apparel ($252 million), textiles ($228 million), leather ($186 million), electronic goods ($95 million), processed food ($89 million) and energy products ($86 million). There are negative changes

(-$200 million) in the transport sector, amounting to a total increase in Indonesian exports of $807 million. In the regional scenario, there are greater changes in cereals ($1,363 million), processed food ($1,752 million) and forest products ($826 million), reflecting the trade flows and protection structures of Japan and Korea as against the non-members the EU and the US. Note that Indonesian motor vehicle exports increase by some $400 million, in spite of a 50 per cent decrease in output. Imports increase by $2,812 million in this sector, reflecting the assumption that imports and exports are not homogeneous products. Indonesia may export rubber tyres for example while importing luxury vehicles.

Table 9 Change in value of Indonesian exports following various scenarios

	Rever-sal	**Standstill**	**Unilateral**	**Bilateral**	**Regional**	**Multilateral**
	%	%	%	%	%	%
Livestock products	-0.2	1.14	4.28	-10.80	0.56	1.47
Cereals	-0.23	12.07	2.87	-8.20	*	12.26
Vegetable oils	-0.38	-1.65	2.39	-7.20	7.69	-1.53
Other crops	-0.49	-0.05	3.01	17.20	-4.87	0.18
Food, beverages & tobacco	-0.32	3.19	3.46	1.20	88.33	3.41
Forest products	-0.31	0.25	3.15	-5.80	11.8	0.48
Fisheries	0.47	0.9	1.79	-7.90	-6.49	0.86
Energy	0.07	-0.05	0.49	-2.80	-1.13	-0.02
Leather	-2.69	3.93	14.22	82.80	3.81	5.4
Textiles	-3.89	3.11	10.67	1.70	6.42	4.4
Apparel	-6.63	2.85	20.57	52.10	2.07	5.1
Chemicals, rubber & plastics	-2.04	-1.48	5.78	-4.20	1.72	-0.83
Motor vehicles	-16.83	-4.58	296.7	-15.60	145.03	4.3
Electronic	-0.68	0.61	11.11	-3.20	0.26	1.82
Manufactures	-0.39	0.09	8.41	-2.90	1.52	1.05
Trade	-0.15	-1.46	1.86	-8.70	-3.29	-1.43
Transport	-0.6	-4	6.86	-12.60	-2.2	-3.67
Telecommunications	-0.09	-3.27	1.74	-8.70	-4.04	-3.25
Banking	-0.11	-4.14	1.67	-8.40	-3.79	-4.13
Other business services	-0.37	-2.9	3.6	-8.60	-2.34	-2.75
Other services	-0.23	-2.58	3.14	-8.30	-4.09	-2.38
Total	**-1.24**	**0.20**	**7.36**	**4.58**	**8.51**	**0.84**

Source: GTAP simulation. *Exports from the cereals sector increase dramatically from a low base.

Two sectors of particular interests are motor vehicles and textiles.

Motor vehicles

For Indonesia the one obvious area of high protection is the motor vehicle sector. Indonesia produces its own car, but also imports for assembly $1.7 billion (at 2000 world prices) in motor vehicles, parts and components over a tariff wall on these goods averaging 25 per cent. These imports help to produce output valued at $11 million or 3 per cent of total output. The sector employs around 2.4 per cent of the economy's labour force, by value.[8] Compared with agriculture and apparel manufacture, however, it does not employ a high proportion of unskilled workers. The 25 per cent average tariff represents a significant impediment to the local economy because the transport sector is important in raising productivity in many other sectors, such as agriculture. Removal of this support leads to a reduction in output of 53 per cent (Table 7).

In spite of the obvious potential for efficiency gains, the current tariff might be considered a convenient method of imposing a consumption tax that is desirable as an environmental tax and to limit traffic congestion. Another consideration against reducing taxes on motor vehicles is whether the available infrastructure is adequate to support the additional vehicles that would be purchased. However, while a tariff is an administratively easy way of collecting taxes, it is a blunt instrument to tackle pollution and congestion. A better approach would be to reduce the fuel subsidy that currently counteracts the tariff as a means of constraining use. There are also further options, also focussing on vehicle usage, particularly in congested areas, if the desire is to tax pollution, and which do not affect resource allocation in the same way as the motor vehicle tariff

Textiles, clothing and leather

Other areas of specific interest to Indonesia are the textiles and clothing sector and leather goods. These sectors are significant employers, highly protected in many countries, and represent an area into which surplus agricultural labour could move with relative ease. Output of leather, textiles and apparel amount to $22 billion.[9]

8 The Indonesian motor vehicle industry is based on assembly of imported components. In 1999 tariff peaks were reduced from 200 per cent to 80 per cent, and tariffs on parts for assembly were reduced to 15 per cent. However, tariffs on foreign made vehicles, especially luxury cars, remain high (WTO, 2003).

9 According to the GTAP database, leather, textiles and apparel comprise 5.5 per cent of national

Impacts of regional integration on exports in these sectors are 3.8, 6.4 and 2.1 per cent respectively. Japan shows the greatest growth in imports of leather ($221 million) and apparel ($140 million) market, whereas increased exports of textiles ($201 million) go to China in the face of competition with Malaysia, Thailand, the Philippines and Japan. Interestingly, in the model China switches at the margin from textile to apparel production, even under the 2000 database that does not fully capture structural pressure within China. Unsurprisingly, output increases from China and Vietnam replaces apparel production in Japan, although it may well be that there are niche areas, such as upmarket silk and silk garments, where Japan would maintain production.

The multilateral scenario has greater implications for the Indonesian textiles sector because there is much more protection facing Indonesian exports in the US and the EU than in Japan, Korea or China. Table A1 illustrates this. As a result, even partial liberalisation in these markets is significant, although Indonesia has to compete with other suppliers. Following partial global liberalisation the output of textiles decreases by $1.2 billion in the EU, $2.0 in the USA and $1.9 billion in Latin America and this is offset mainly by an increase in China ($4.2 billion). Indonesian output also increases by $414 million. A similar story applies to apparel where changes in the EU, USA and Latin America totalling $11 billion are compensated by production increases in China ($7.0 billion) and India ($2.4 billion). Indonesia increases output by $245 million, or 5 per cent. Indonesia's ASEAN partners provide significant competition in this sector. Overall global output falls as developed country subsidies to production are removed.

6. Implications of Results and Limitations

In comparing the estimated impacts, it is necessary to keep in mind whether these scenarios could be implemented as specified. Increasing protection shows no economic gains, although there may be non-economic considerations that justify this approach. Indeed, an argument is sometimes made that protection may encourage foreign investment directed at the large domestic market (as in the case of China), as

---

output. About half the output is exported, contributing 18 per cent of total merchandise exports. The apparel sector is relatively labour intensive, using twice the proportion (40 per cent) of unskilled labour as the overall economy.

some foreign firms may be attracted to setting up a government sanctioned monopoly behind a tariff wall. The downside of this strategy is that investors may fear that tariffs will be removed at some stage. This feature is not captured by GTAP.

The second option, a standstill while others proceed with liberalisation, brings very few gains, with the opportunity cost being small as compared to the reversal of liberalisation policies. But obviously the gains are less than going with the flow.

Economic integration shows the greatest gains in the scenarios under consideration. Once Indonesia has access to the Japanese market, the additional gains from further access to Europe and the United States are reduced. Indonesia would benefit more from deep integration with Japan and Korea than with a wider but shallower integration in the world economy. However, both of these scenarios are uncertain. It is unlikely that Japan, or Korea for that matter, would be prepared to undertake the depth of liberalisation postulated here in agriculture, for example.

Small countries, with little bargaining power, are likely to be advantaged by a rules-based system. At Cancún, developing countries were able to demonstrate they had some influence, and this will prove useful if the eventual outcome is superior. There is a risk, however, that small countries end up as “bit players” in a hub-and-spoke system or are excluded from any regional arrangement.

Another option is to go it alone and unilaterally liberalise (while “binding” could be carried out in future WTO negotiations). The benefits from liberalisation appears to come mainly from allocative efficiency gains rather than from improved terms of trade, and this suggests that Indonesia could capture most of the gains from unilateral action, without waiting for others to come on board.

The present study does not take full account of several important factors. For example, nothing is said here about the cost of moving resources from one sector to another. This is a one-off cost, whereas the benefits of liberalisation recur annually. Nonetheless, these costs are real enough and are not captured in the present analysis. Anecdotal evidence suggests these costs may be much larger for an economy like Indonesia than many developed economies, as Indonesia is recovering from a political, social and economic crisis and has poorly functioning institutions and an internal market system. There is, unfortunately, little

information available as to how large these adjustment costs might be, especially in developing countries, but governments can aid the adjustment process by phasing in the liberalisation, providing retraining schemes, ensuring well functioning financial markets, facilitating export schemes and business start-ups, and generally assisting the flow of information. Foreign governments can also help by opening up markets and providing assistance for infrastructure and other supply-side components.

The analysis also ignores the dynamic gains from liberalisation. This includes the increase in productivity resulting from enhanced competition and new technologies. These gains may outweigh the static gains. Also ignored are the benefits of increasing returns to scale, which imply that specialisation of production leads to productivity gains. Monopolistic competition is also ignored (also in foreign markets where the power of large marketing chains often drives down prices received by producers in developing countries).

Finally, there are several data limitations, over and above those that apply to any large model. The absence of protection data to most of the services sector substantially reduces the estimated impacts. The services sector is very large and indications are that impediments to trade are substantial. In many modelling studies, the gains in terms of real income are similar to or greater than those derived from liberalization of trade in agriculture and manufacturing combined (McGuire, 2003).

Notwithstanding the obvious and more subtle limitations, the analysis affirms the long-term expectation that more liberalisation is better than less, and that Indonesia can capture important benefits by ongoing reform of its own markets and institutions, although improved market access is also helpful. Given the trade flows and existing protection levels, areas of high protection, such as motor vehicles, steel, and petrochemicals – which also produce inputs to other parts of the Indonesian economy - would seem to be the place to focus the renewal of trade reform - and indeed where there has already been significant reform. However, more remains to be done. No doubt there are political constraints to be considered, but the present analysis shows that even standing still has its costs in terms of foregone opportunities.

7. Issues for Further Trade Reforms

Indonesia is in the process of recovering from a multidimensional crisis that has fundamentally changed economic, political and social frameworks in a short space of time.

Within this framework the parameters for trade have also obviously moved. The exchange rate is now largely market determined, trade protection is lower and the government has moved from a centrally-oriented approach towards implementing a rules-based market system. Indonesia is locked out of some of the non-reciprocal preferential arrangements enjoyed by its competitors in textiles and agriculture. However, it seems committed to regional liberalisation within AFTA. The crisis and the continued difficult macro-economic environment, however, have led to a serious debate on the future direction of trade policy. The options being debated include to go back, standstill, or go forward faster either wider (multilateral) or deeper (regional).

Support for further liberalisation is low, as it appears that reforms put in place in Indonesia since the crisis has not led to an improvement in export growth, technology uptake or productivity growth (McGuire, 2004). It is not clear why these improvements have not occurred, but trade openness is most often seen as a necessary but not sufficient condition. Other factors must be present as well. Of these, perhaps the most important one is the confidence to invest whether by domestic or foreign investors. This requires a stable macroeconomic policy and minimal political uncertainty, factors that have been missing in Indonesia in recent years. While the broader political considerations are beyond the scope of this paper, what is needed on trade policy is a broad-based consensus on a clear policy that is credible with investors. Standing still in the short term will obviously provide Indonesia with leeway to develop a comprehensive at-the-border and behind the border trade policy.

From here, whether the approach to liberalisation is reversal, unilateral free trade or something in between, the first step should involve reducing tariffs in highly protected sectors, motor vehicles, steel and chemicals. These sectors cause the greatest distortions and the greatest deadweight losses on the economy. This step would reduce the level and variance of tariffs by moving towards a low and relatively uniform structure. Less tariff dispersion means that fewer resources will be drawn to areas where there is high protection and usually inefficient industries. Low and uniform tariffs are also less susceptible to pressure from well organised vested interest groups.

A second step, but perhaps just as important, is to remove opaque non-tariff measures. Non-tariff measures are more easily subject to discretion and many clearly have elements of rent-seeking activity. For example, the non-tariff measures for some steel and textiles products are clearly not in place for health and security reasons and only serve to line the pockets of those that hold import licenses. The removal of such measures should directly improve resource allocation and reduce rent-seeking activities that are particularly widespread throughout

Indonesia's trade regime. An often-cited alternative to removing these non-tariff measures is to convert them to tariff equivalents. This at least supplements government revenue before the removal of protection.

Indonesia also needs to resist falling into the trap of past liberalisation efforts that prevented many of the gains being transmitted to the real economy. In the past, industries have remained competitive in the face of international competition with the aid of government assistance. Throughout major trade reforms – the mid-1980s and following the 1997 Asian Financial crisis – highly protected areas were left mainly untouched by liberalisation reforms. Many of the industries with high protection are politically well-connected infants that have failed to become competitive behind the tariff wall that insulates them from competitive pressures. Other policy failures have also contributed. For example, the ongoing duty-drawback scheme has provided some relief for exporters using imported inputs, but inhibits the development of backward linkages to potential intermediate supplier and supporting industries.

Trade liberalisation and the benefits it brings are not without costs that need to be addressed through complementary policies. For further liberalisation to be successful a range of complementary *behind-the-border* policies are necessary. At the forefront, effective government adjustment policies will be needed to help those adversely affected. Safety nets are needed to support those adversely affected during the adjustment period which will vary in duration and severity depending on age, skills and mobility of workers. A general safety net would need to be installed independent of the needs of trade liberalisation as an essential component of preserving human capital. This minimal broad based safety net should be supplemented by retraining and reallocation policies for those directly affected by the loss of employment.

A mixture of other complementary policies is also needed. A regime is needed that encourages investment and competition so that business inputs are supplied at competitive prices for existing firms to be able to compete in a the new liberalised environment as well as macroeconomic policies that encourage stable prices and competitive exchange rates. While Indonesia has made good progress on the latter, the investment climate is still poor. Indonesia is rated 138 of 140 on the UNCTAD inward FDI performance rank (UNCTAD, 2003b). A new competition law was introduced in 2000, but the law has several shortcomings and some rulings by the Business Competition Supervisory Commission has also appeared to have the effect of protecting small businesses from competition rather than promoting competition

(Wie, 2003). As mentioned, overall tariff revenue is relatively low, but some tax reform may be needed to raise new sources of revenue to offset the loss of revenue from tariff reductions.

And most of all, effective institutions and infrastructure will need to be built to effectively implement complementary policies. The Government of Indonesia will need to be strengthened to respond to the new liberalised environment and institutional gaps and weaknesses identified and filled. For example, reforming the Indonesian customs authority could streamline trade for importers and exporters, and boost government revenue. Indonesia also ranks poorly in terms of trade supporting infrastructure. Indonesia is ranked last out of 49 countries in the 2002 World Competitiveness Yearbook on the extent to which basic technological, scientific and human resources meet the needs of business (IMD, 2002). In terms of physical infrastructure, Indonesia lags behind its neighbours in quantity and quality of roads, electricity generation and telecommunications services (Chowdhury, 2002). Government capacity to make and implement trade policy, in particular, would need to be enhanced. Investment in physical and social capital will need to be upgraded to world standards for remaining industries to be able to respond to international competition.

Much needs to be done for Indonesia to become internationally competitive and in a position to maximise the benefits from further trade liberalisation. With so much to be done and Indonesia still recovering from an historic multi-dimensional crisis, a gradual rather than a ‘big bang’ approach to further liberalisation is likely to be the most successful. Adjustment costs, especially in terms of unemployment, are likely to be reduced if the reforms are phased in. For such an approach to be sustainable and creditable, a clear agenda and timetable for further liberalisation needs to set and adhered to. This sends a clear signal that protection will be reduced and removed as that they will respond to the changed set of incentives instead of undertaking inefficient lobbying to maintain protection.

What conclusions can be drawn from this analysis for other developing countries? Care must be taken in providing a “one size fits all” solution. The trade and development process is complex and what works in one country or one industry may not work in others. In addition, there may be a number of ways of reaching the same objective. Nonetheless, a few general conclusions can be drawn from this analysis of the Indonesian experience. First, while enhanced market access is beneficial, what happens behind the border is at least as important. Maintaining international competitiveness involves raising productivity though sound policies and productive investment. To encourage investment suitable institutions need to be in place to remove uncertainty. Investors look for a skilled and healthy workforce. An efficient transport system is required to move goods to the market. The government’s role

should focus on providing physical and intellectual infrastructure. In terms of trade policy, a phased reduction of the major distortions is likely to be beneficial. In the absence of multilateral reforms, bilateral and regional initiatives may be desirable, although these impose costs on non-members.

Table A1 Implicit tariff revenues on Indonesian exports ($m)

	European Union	United States	Japan	China	Korea	India	Other	Total
Livestock products	4	0	1	3	0	0	5	14
Cereals	28	1	51	0	2	0	2	84
Vegetable oils	67	5	1	48	11	47	74	253
Other crops	21	103	54	9	22	9	78	297
Food, beverages & tobacco	64	46	374	14	31	1	45	575
Forest products	69	36	158	107	38	9	132	549
Fisheries	1	0	4	1	0	0	0	7
Energy	2	2	-29	1	60	2	91	130
Leather	130	275	35	2	3	0	66	512
Textiles	117	62	27	55	9	15	134	418
Apparel	147	202	28	1	1	0	130	507
Chemicals, rubber & plastics	21	8	12	42	8	35	88	214
Motor vehicles	1	0	0	0	0	0	6	10
Electronic	44	35	0	5	5	2	46	137
Manufactures	32	43	8	23	9	9	72	195
Trade	0	0	0	0	0	0	0	0
Marine transport	3	0	0	4	0	0	4	11
Air transport	0	0	0	0	0	0	1	1
Telecommunications	0	0	0	0	0	0	0	0
Business services	0	0	0	0	0	0	1	1
Recreational & other	0	0	0	0	0	0	0	0
Other services	0	0	0	0	0	0	0	1
Total	753	820	725	313	199	128	975	3918

Source: GTAP 5.4 database. Remaining tariffs within ASEAN region, scheduled for removal by 2010, are not shown here.

Abugattas L (2004). Swimming in the spaghetti bowl: Challenges for developing countries under the "New Regionalism". Policy issues in international trade and commodities no. 31, Geneva, forthcoming.

ADB (Asian Development Bank) (2001), 'Key indicators of developing Asian and Pacific countries', Manila.

Aswicahyono, H. and Feridhanusetyawan, T. (2003), Indonesia's Strategy for Industrial Upgrading, paper presented at a workshop on 'Why Trade and Industry Policy Matters', UNSFIR, Jakarta, 14-15 January.

Banerjee, S. and Siregar, H. (2002), 'Agriculture as the leading sector: An industrial policy framework', UNSFIR Working Paper No. 02/02, Jakarta.

Basri, C. and Hill, H. (2004), 'Ideas, Interests and Oil Prices: The Political Economy of Trade Reform During Soeharto's Indonesia', The World Economy, (forthcoming).

Bisnis Indonesia 2000, 30 May.

BPS (Central Statistical Agency) (2001), National Social Economic Survey (SUSENAS), Statistical publication, Jakarta.

Cernat L and Laird S (2003). North, South, East, West: What's best? Modern RTAs and their implications for the stability of trade policy. CREDIT Research paper 03/11 (August), Centre for Research in Economic Development and International Trade, University of Nottingham.

Chowdhury, A. (2002), Indonesia 2020: Long-Term Issues and Priorities, BAPPENAS/UNSFIR Discussion Paper, Jakarta.

CSIS (Centre for Strategic and International Studies) (2000), 'Report to the East Asia Analytical Unit on the Trade Environment in Indonesia', July, Jakarta.

DFAT (Australian Department of Foreign Affairs and Trade) (2000), *Indonesia: Facing the Challenge*, DFAT East Asia Analytical Unit, www.dfat.gov.au

Feridhanusetyawan, T. and Pangestu, M. (2003), 'Indonesian trade liberalisation: Estimating the gains', *Bulletin of Indonesian Economic Studies*, 39(1), 51—74.

Feridhanusetyawan, T. (2001), *Indonesia's Trade Policy and Performance*, Working Paper, Centre for Strategic and International Studies, Jakarta.

GTAP (Global Trade Analysis Project) (2003), GTAP Model Version 5.4, http://www.gtap.org.

Hoekman, B., Michalopoulos, C., Shiff, M. and Tarr, D. (2001), Trade Policy Reform and Policy Alleviation, Policy Research Working Paper 2733, World Bank, Washington DC.

IMD International (2002), *World Competitiveness Yearbook 2002*, Lausane.

Jakarta Post (2000), 10 May.

James, W.E., Ray, D.J. and Minor, P. (2003), 'Indonesia's textiles and apparel: the challenges ahead', *Bulletin of Indonesian Economic Studies*, 39(1), 93—103.

Kim, C. (2004), Industrial Development Strategy for Indonesia: Lessons from the Korean Experience, paper presented at a workshop on 'Why Trade and Industry Policy Matters', UNSFIR, Jakarta, 14-15 January.

McGuire, G. (2003), *Trade in Services – Market Access Opportunities and The Benefits of Liberalization for Developing Economies*, Policy Issues in International Trade and Commodities Study Series No. 19, UNCTAD, United Nations, New York and Geneva (http://192.91.247.38/tab/bluepubs.asp).

McGuire, G. (2004), Trade Liberalisation: Which Road to Take?, paper presented at a workshop on 'Why Trade and Industry Policy Matters', UNSFIR, Jakarta, 14-15 January.

UNCTAD (2003a), Agricultural Trade Simulation Model, (http://www.unctad.org/tab).

_____ (2003b), World Investment Report 2003 – FDI Policies for Development: National and International Perspectives, UNCTAD, United Nations, New York and Geneva (http://www.unctad.org/wir).

_____ (2003c), UNCTAD Handbook of Statistics on CD-ROM, UNCTAD, United Nations, New York and Geneva.

_____ (2003d). Review of developments and issues in the post-Doha work programme of particular concern to developing countries: the outcome of the fifth WTO Ministerial Conference. TD/B/50/8, Geneva, 29 September.

Wie, T. (2003), 'Competition Policy in Indonesia and the New Anti-Monopoly and Fair Competition Law', Bulletin of Indonesian Economic Studies, vol. 38, no. 3, pp. 331-42.

WITS/TRAINS (2003), *Database on International Trade and Tariffs*, UNCTAD-World Bank, Geneva and Washington.

WTO (2003), Trade Policy Review - Indonesia, Report by the Secretariat, WT/TPR/S/117, Geneva.