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Global Imbalances

TRADE EFFECTS AND POLICY CHALLENGES

Przemyslaw Kowalski,

Molly Lesher

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Abstract

GLOBAL IMBALANCES: TRADE EFFECTS AND POLICY CHALLENGES

by

Przemyslaw Kowalski and Molly Lesher, OECD

The search for balanced, sustainable growth clearly involves the unwinding of large and persistent global imbalances. Much of the attention in the rebalancing debate has centred on how shifts in monetary and fiscal policies affect current account imbalances. This paper goes beyond macroeconomic management considerations and exchange rate realignments to assess how one type of structural policy reform – namely trade and trade-related policy reforms – may facilitate global rebalancing. In addition, the paper analyses how might various rebalancing scenarios, even if they do not explicitly include major trade policy reforms, impact global trade.

Our analysis suggests that a co-ordinated response involving macroeconomic, exchange rate and structural reforms, including trade policy reforms, are needed to address imbalances in the global economy. Trade is a part of the solution since trade policy distortions reduce the benefits from trade and, through their effects on relative prices, jointly influence economic incentives on both the trade balance and net national savings sides of the national savings-investment identity. In particular, since some imbalances stem from the asymmetric pattern of remaining protectionism in goods and services sectors, a balanced approach to trade policy reform could facilitate the global adjustment process.

***JEL Classification*:** F13, F15, F32, F37, F41, F42, L6, L8

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Table of contents

Executive Summary 6

1. Introduction 7

2. Which kinds of policies can help rebalance the global economy? 10
   Current account imbalances are not necessarily harmful 12
   A conceptual framework for analysing global imbalances 13
   The exchange rate regime and its relation to the trade balance 12
   Structural policies in the rebalancing process 14
   Can trade policy be used as a tool for rebalancing the global economy? 17

3. The evolution of current account imbalances and the macroeconomy 16
   External imbalances emerged pre-crisis and persist in the recovery 19
   Rebalancing in the current macroeconomic context 22

4. Trade solutions to the rebalancing process 23

5. Quantifying the role of trade policy in global rebalancing 38
   The modelling framework 39
   Data, country and sector coverage 41
   Rebalancing scenarios and results 43

6. Conclusions and policy implications 43

References 49

Annex I. Tables and figures 52

Annex II. Technical annex 90

Annex III. Modelling results 95

Tables

Table 1. Top ten surplus and deficit economies 20
Table 2. Export potential in the deficit countries 28
Table 3. Country and sector aggregation 42

Table A.1. Current account deficits in top three surplus and deficit countries 55
Table A.2. Real GDP growth 56
Table A.3. Consumer Price Index 57
Table A.4. Foreign direct investment 58
Table A.5. Product Market Regulation, 2008 58
Table A.6. Public health expenditure 59
Table A.7. FDI Restrictiveness Index 59
Table A.8. Comparative advantage and tariff rates: Deficit countries (2-digit HS chapters) 60

Table A.9. Comparative advantage and tariff rates: Surplus and other G-20 countries (2-digit HS chapters, 2007) 64
Table A.10. Comparative advantage and tariff rates: Deficit countries (4-digit HS chapters, 2007) 69
Table A.11. Comparative advantage and tariff rates: Surplus and other G-20 countries (4-digit HS chapters, 2007) 77

Table A2.1. List of considered scenarios 93
Table A2.2. Results obtained from CGE studies of trade liberalisation 94

Table A3.1. Scenario 1: 10% consumption decrease in the United States 96
Table A3.2. Scenario 2: 10% consumption increase in China 97
Table A3.3. Scenario 3: 10% consumption decrease in the United States combined with 10% consumption increase in China 98
Table A3.4. Scenario 4: 100% liberalisation of remaining tariffs across all regions and all sectors 99
Table A3.5. Scenario 5: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2) 100
Table A3.6. Scenario 6: 100% liberalisation of remaining tariffs across all regions in agriculture and processed food 101
Table A3.7. Scenario 7: 100% liberalisation of remaining tariffs across all regions in all manufacturing sectors 102
Table A3.8. Scenario 8: 100% liberalisation of remaining tariffs across all regions in the chemicals sector 103
Table A3.9. Scenario 9: 100% liberalisation of remaining tariffs across all regions in the motor vehicles sector 104
Table A3.10. Scenario 10: 100% liberalisation of remaining tariffs across all regions in the machinery sector 105
Table A3.11. Scenario 11: 30% decrease in the cost of producing and delivering to the foreign market across in retail trade (Modes 1 and 2) 106
Table A3.12. Scenario 12: 30% decrease in the cost of producing and delivering to the foreign market across in financial services and insurance (Modes 1 and 2) 107
Table A3.13. Scenario 13: 30% decrease in the cost of producing and delivering to the foreign market across in business services (Modes 1 and 2) 108
Table A3.14. Scenario 14: 100% liberalisation of remaining tariffs across all sectors (China + ASEAN) 109
Table A3.15. Scenario 15: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Modes 1 and 2) (China + ASEAN) 110
Table A3.16. Scenario 16: 100% liberalisation of remaining tariffs in agriculture and processed food (China + ASEAN) 111
Table A3.17. Scenario 17: 100% liberalisation of remaining tariffs in all manufacturing sectors (China + ASEAN) 112
Table A3.18. Scenario 18: 100% liberalisation of remaining tariffs in the chemicals sector (China + ASEAN) 113
Table A3.19. Scenario 19: 100% liberalisation of remaining tariffs in the motor vehicles sector (China + ASEAN) 114
Table A3.20. Scenario 20: 100% liberalisation of remaining tariffs in the machinery sector (China + ASEAN) 115
Table A3.21. Scenario 21: 30% decrease in the cost of producing and delivering to the foreign market in retail trade (Modes 1 and 2) (China + ASEAN) 116
Table A3.22. Scenario 22: 30% decrease in the cost of producing and delivering to the foreign market in financial services and insurance (Modes 1 and 2) (China + ASEAN) 117

Table A3.23. Scenario 23: 30% decrease in the cost of producing and delivering to the foreign market in business services (Modes 1 and 2) (China + ASEAN) 118
Table A3.24. Scenario 24: 10% consumption decrease in the United States combined with 10% consumption increase in China with unemployment in selected regions 119
Table A3.25. Scenario 25: 100% liberalisation of remaining tariffs across all regions and all sectors with unemployment in selected regions 120
Table A3.26. Scenario 26: 100% liberalisation of remaining tariffs combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2) with unemployment in selected regions 121
Table A3.27. Scenario 27: 100% liberalisation of remaining tariffs across all regions (China + ASEAN) and all sectors with unemployment in selected regions 122
Table A3.28. Scenario 28: 100% liberalisation of remaining tariffs combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2, China + ASEAN) with unemployment in selected regions.....123
Table A3.29. Scenario 3B: 10% consumption decrease in the United States combined with 10% consumption increase in China with ROFLEX parameter of 15.....124
Table A3.30. Scenario 4B: 100% liberalisation of remaining tariffs across all regions and all sectors with ROFLEX parameter of 15 125
Table A3.31. Scenario 5B: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2) with ROFLEX parameter of 15 126
Table A3.32. Scenario 14B: 100% liberalisation of remaining tariffs across all sectors (China + ASEAN) with ROFLEX parameter of 15.....127
Table A3.33. Scenario 15B: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Modes 1 and 2) (China + ASEAN) with ROFLEX parameter of 15 128
Table A3.34. Scenario 3: 10% consumption decrease in the United Sates combined with 10% consumption increase in China.....129

Figures

Figure 1. Current account balances as a share of GDP 21
Figure 2. Structure of the financial accounts of the top ten deficit and surplus countries 21
Figure 3. Composition of current account balances, 1990-2009.....25
Figure 4. Structure of the current accounts in the top ten deficit and surplus countries.....26
Figure 5. GATS commitments restrictiveness index - all service sectors.....33
Figure 6. Export and import specialisation in top three surplus and deficit economies.....34
Figure 7. China's imports of services 35
Figure 8. Services barriers in select surplus and major economies: Estimated tax equivalents, 2004 36
Figure 9. Services barriers in distributions services in select surplus and major economies: Estimated tax equivalents, 2004.....38

Figure A.1. Real GDP growth, projections.....88
Figure A.2. Consumption.....89

Executive Summary

As the world economy recovers from the economic crisis of 2008-09, governments are exploring a range of policy options to avoid future crises and ensure stable growth. The large global imbalances that emerged in the run-up to the crisis, and which seem poised to re-emerge as the global economy recovers, have surfaced as an important element of the policy debate on ensuring sustainable future growth. Policymakers from the G-20 and others are now considering how to tackle global imbalances so that all economies benefit.

Much of the attention in the rebalancing debate has centred on how shifts in monetary and fiscal policies affect global imbalances.[1] Monetary and fiscal policies have undoubtedly been at the heart of the build-up of imbalances, and they will have to be an integral part of the solution. The role of exchange rate changes in correcting imbalances has also attracted considerable attention. While the extent of possible nominal exchange rate misalignments is a hotly debated topic, it is clear that rebalancing must involve adjustments in real exchange rates (either through nominal exchange rates or through prices).

This paper goes beyond macroeconomic management considerations and exchange rate realignments to assess how one type of structural policy reform – namely trade and trade-related policy reforms – may facilitate global rebalancing. Moreover, the paper analyses how might various rebalancing scenarios, even if they do not explicitly include major trade policy reforms, impact global trade. Thus, this study complements recent OECD work that analyses the impact of non-trade structural policy reforms on current account imbalances (OECD, 2011b).

Trade is a part of the solution since trade policy distortions reduce the benefits from trade and, through their effects on relative prices, jointly influence economic incentives on both the trade balance and net national savings sides of the national savings-investment identity.[2] The aim of this paper is to provide policymakers with analysis of how trade policy, underpinned by macroeconomic and structural reform, can act as an additional tool for tackling global imbalances.

1. The debate on global imbalances often refers interchangeably to the current account balance and the trade balance. While this paper focuses on current account balances, the two terms are often used synonymously because the trade balance is the largest component of the current account.

2. This identity states that the Current Account = (T-G) + (S-I). Where (T-G) is the consolidated government budget balance, and (S-I) is the private sector savings-investment balance.

The study begins by considering the theoretical explanations of current account imbalances and situating trade liberalisation in a broad palette of policies that can contribute to global rebalancing. It summarises the current macroeconomic context and describes the evolution and structure of current account balances in the run-up to the 2008-09 crisis. The paper proceeds by outlining major changes in the structure of current accounts and analyses revealed comparative advantage and the structure of trade protection as a way of identifying specific trade policy options for rebalancing. In addition, the results from a number of computable general equilibrium (CGE) model simulations of stylised consumption and trade policy reform scenarios are provided as a broad indication of the extent to which such reforms can help the rebalancing process. All of the qualitative and quantitative arguments are brought together in the final section, which formulates a list of policy implications, which are also outlined below.

Policies to encourage more balanced sources of demand are needed

Rebalancing requires a more even distribution of sources of demand in deficit and surplus economies, with surplus countries relying more on internal demand and deficit economies focusing more on external sources of demand. To a certain extent, such rebalancing has already been taking place. Slower growth in the OECD area as compared to many emerging economies with large current account surpluses means that these economies must rely less on exports to OECD countries and shift demand toward domestic and intra-regional sources through increases in domestic investment and both private and government consumption, particularly if these changes do not threaten macroeconomic stability and boost potential output in the longer term. By the same token, the largest deficit countries, many of which are OECD members, are profiting from faster growth in the emerging economies and thus shifting reliance toward external demand.

Structural policies aimed at increasing long-term growth can play an important role in encouraging these shifts. Product market and social welfare reforms, as well as other structural policies, can spur growth and at the same time facilitate the rebalancing process. The modelling results provided in this study – while subject to the many caveats typical of CGE modelling – illustrate that changes in consumption and savings behaviour are indeed central to the global rebalancing process, and they can significantly affect the external balances of countries introducing such reforms. However, the modelling results also show that complementing structural and macro policy reform with trade liberalisation may provide a more comprehensive policy package aimed at addressing global imbalances.

Regardless of trade policy reform, the rebalancing process will affect trade, particularly in certain sectors

The study finds evidence to support the hypothesis that rebalancing, even if it does not explicitly include major trade policy reforms, impacts the structure of global trade. Important sectoral shifts are found, such as sizeable increases in exports of manufactures (e.g. machinery) and services (e.g. business, financial and insurance services) in the United States, as global imbalances unwind. Evidence of considerable increases in imports of certain goods (e.g. oil, coal and petrochemicals) and services (e.g. retail and financial services) in China also emerge from the modelling exercise.

Trade policy reforms aimed at reducing asymmetric protection would be useful

The analysis also suggests that asymmetric patterns of trade protection may be hindering the rebalancing process, and that further liberalisation can help reduce imbalances as well as increase economic efficiency in the same way that other types of structural policies can facilitate this process. Modelling results of further tariff liberalisation involving China and a group of Southeast Asian countries – economies with some of the largest surpluses and relatively high trade barriers – suggest that such reforms could reduce these regions' surpluses by up to 1 percentage point of GDP. The study also finds evidence that the potential for trade reforms to contribute to the rebalancing process is greater in the current context of relatively high unemployment in much of the OECD area, underscoring the need for swift action in further liberalising trade.

Trimming tariffs would help global rebalancing and increase efficiency

In addition to the overall global welfare gains, the modelling results indicate that multilateral tariff liberalisation exhibits some rebalancing properties in that, for example, the trade surplus of China falls (-0.3 percentage points of GDP) and the US deficit improves (0.5 percentage points of GDP) relative to the baseline. These changes are smaller than those associated with the consumption scenarios undertaken, but they are nonetheless not inconsequential.

This suggests that remaining tariff barriers in some of the surplus and other major economies may be impeding the export potential of the deficit countries. In the chemicals sector, for example, there appears to be scope for trade liberalisation to play a facilitating role in bringing about better balance in the global economy. Removing smaller pockets of protection in other sectors, such as machinery or motor vehicles, may also facilitate the rebalancing process. Tariff reductions would likewise benefit the surplus economies by reducing trade-related distortions, which hurt households by driving up prices and lead to inefficient production and consumption choices.

Reducing services barriers may also in principle help rebalance the global economy and boost productivity…

Many of the deficit countries are potentially at a disadvantage when trying to rebalance their economies because they face higher barriers to exporting services, where they reveal a comparative advantage. For example, this study finds that among the top surplus and deficit countries, the disparities in specialisation indices are larger for exports of services as compared to exports of goods, indicating that a given world-wide marginal increase in services trade barriers could create larger payment imbalances relative to a comparable marginal increase in goods trade barriers. It would also be economically beneficial to liberalise services from the perspective of some of the largest surplus economies, particularly those in developing Asia, where barriers are highest. Services liberalisation would help these countries by providing access to a greater variety of and better quality services, and the associated services productivity boost would encourage domestic consumption, putting these countries on a more sustainable growth path, as well as enhancing productivity across the economy by reducing input costs.

… though the modelling results in this area suggest a small effect given the existing low share of services in global trade

Thus, there are reasons to think that services liberalisation could play a useful role in the rebalancing process, but in the modelling exercise performed in this paper imbalances are only modestly reduced as a result of services trade liberalisation. One explanation of this result is that, despite the high shares of services in value added of most economies, services trade via modes 1 and 2 account for less than 14% of world trade in goods and services. Here, the static nature of the modelling framework makes results dependent on initial structural characteristics and not particularly well-suited to studying very significant structural changes, such as services sector expansion. Moreover, services liberalisation boosts productivity in export sectors, diminishing the impact on current account imbalances. The modest rebalancing result can also be attributed to the generic character of the assumed liberalisation scenario, in which the actual structure of barriers across countries and services sectors are not fully taken into account because of lack of reliable data on services trade barriers. Finally, FDI – or mode 3 – is not accounted for in the modelling. In principle, opening up to FDI could play an important role in surplus economies by increasing domestic productivity in less traded sectors and thus improving prospects for balanced growth.

A multilateral and co-ordinated approach to reducing imbalances is essential

The diverse range of countries that exhibit large current account imbalances suggests that concluding a meaningful Doha Development Agenda (DDA) agreement in the World Trade Organisation (WTO), a multilateral setting in which maximum benefits can be achieved for all, would be more effective in containing and reducing imbalances as compared to regional initiatives. Moreover, the DDA negotiations should emphasise balanced sectoral outcomes, so that asymmetries in liberalisation patterns across broad sectors such as agriculture, manufacturing and services minimise inter-sectoral distortions. All economies have a stake in reducing trade-related distortions, and an ambitious and balanced agreement in the context of the DDA would be an important step forward in taking full advantage of the potential benefits of trade liberalisation, for global imbalances and for growth.

Ultimately, a co-ordinated response involving macroeconomic, exchange rate and structural reforms, including trade policy reforms, are needed to address the imbalances in the global economy. Structural reforms focused on improving productivity in neglected sectors can lead to more balanced economic growth. In particular, since some imbalances stem from the asymmetric pattern of remaining protectionism in goods and services sectors, a balanced approach to trade policy reform could facilitate the global adjustment process. Overall, the findings in this paper suggest that trade policy can play a useful role in the rebalancing process.

1. Introduction

As the world economy recovers from the economic crisis of 2008-09, governments are exploring a range of policy options to avoid future crises and ensure stable growth. While the crisis began with problems in financial markets, it then spread world-wide through financial and real channels, the origins of which were multi-layered and multi-dimensional. Economic developments in a number of areas were deemed unsustainable in the years leading up to the crisis and were subsequently linked to the origin or the severity of the global "hard landing."

One prominent issue relates to the large current account surpluses and deficits that emerged in the years leading up to the crisis. While current account deficits and surpluses normally reflect economically beneficial developments, they can also build up in an unsustainable fashion and may in turn lead to costly and abrupt corrections or even crises. Moreover, persistently large imbalances make the global economy more vulnerable by creating uncertainty in markets and hampering international trade and investment. Policymakers from the G-20 and others are now considering how to tackle global imbalances so that all economies benefit.

While concerns about global imbalances are not new, some argue that the situation that emerged in the mid-2000s was unsustainable. Aizenman (2010), for example, pointed out that for China to sustain pre-crisis growth rates together with a current account surplus of 10% of GDP, all countries would need to increase their current account deficit-to-GDP ratios to match the Chinese surpluses. Additionally, the post-crisis combination of trade surpluses in large emerging economies and persistently high unemployment in major industrialised countries has become a source of protectionist pressures (Freund, 2009; Evenett, 2009; and Baldwin, 2009).

While debate continues about the degree to which global imbalances contributed to the severity of the 2008-09 crisis, a consensus has emerged among world leaders that a reduction in imbalances is an essential feature of the reforms needed to ensure stable, sustained future growth.[3] Because of the polarising nature of the debate on bilateral trade imbalances and fears of protectionism, much of the attention in the rebalancing debate has centred on how shifts in monetary and fiscal policies would affect national saving-investment imbalances. While such policies have undoubtedly been at the heart of the build-up of imbalances prior to the crisis and will thus have to be an important part of the solution, the role of trade and other structural policies in the global rebalancing process in both surplus and deficit countries should not be neglected. This is not least because trade policy distortions, through their effect on relative prices, jointly influence economic

3. The debate on global imbalances often interchangeably refers to current account balances and trade balances. However, the two can be quite different. The current account is usually defined as an account of a country's international transactions arising from current flows, as opposed to changes in stocks which are part of the capital account. The current account includes trade in goods and services (including payments of interest and dividends on capital) plus inflows and outflows of transfers. The trade balance is a sub-account of the current account and represents the value of a country's exports minus the value of its imports. It usually incorporates trade in services, including earnings (interest, dividends, etc.) on financial assets. This paper tries to make a clear distinction between the two types of balances wherever possible, although it also demonstrates that the trade balance accounts for the bulk of current account balances in the countries with largest current account deficits and surpluses (Figure 4).

incentives on both the trade balance and net national savings sides of the national savings-investment identity.[4]

So far, trade policy has been called upon to reduce imbalances, or even force rebalancing, through trade-restricting measures.[5] However, such an approach is both self-defeating and highly destructive (Evenett, 2010a).[6] Indeed, current account imbalances can be reduced or even eliminated by significantly restricting international trade and investment, and in the same way trade policy reforms can in principle impact the structure and evolution of imbalances. In theory, trade policy reforms can influence rebalancing directly through their impact on relative prices of exports and imports, or consumption and investment behaviour, but also through their effects on investment and incomes.

This paper goes beyond macroeconomic management considerations and exchange rate realignments to address an issue that has received much less attention: can trade and trade-related policy reforms facilitate global rebalancing? Moreover, how might various rebalancing scenarios, even if they do not explicitly include major trade policy reforms, impact global trade? The aim of this paper is to provide policymakers with analysis of how trade policy can act as additional tool for tackling global imbalances.

The study begins by considering the theoretical explanations of current account imbalances and situating trade liberalisation in a broad palette of policies that can contribute to global rebalancing. It summarises the current macroeconomic context and describes the evolution and structure of current account balances in the run-up to the 2008-09 crisis. The paper proceeds by outlining major changes in the structure of current accounts and analyses revealed comparative advantage and the structure of trade protection as a way of identifying specific trade policy options for rebalancing. In addition, the results from a number of computable general equilibrium (CGE) model simulations of stylised consumption and trade policy reform scenarios are provided as a broad indication of the extent to which such reforms can help the rebalancing process. All of the qualitative and quantitative arguments are brought together in the final section, which formulates a list of policy implications.

4. This identity states that the Current Account = (T-G) + (S-I). Where (T-G) is the consolidated government budget balance, and (S-I) is the private sector savings-investment balance.

5. Krugman (2010), for example, called for import tariffs to be imposed on Chinese imports to reduce the United States' bilateral trade deficit with China. In addition, the temporary 1971 US import surcharge has been considered as a viable precedent in the current United States-China currency dispute.

6. See Evenett (2010a) for a summary of this debate and Evenett (2010b) for an analysis of the 1971 import surcharge.

2. Which kinds of policies can help rebalance the global economy?

Much of the attention in the rebalancing debate has centred on how shifts in monetary and fiscal policies affect national savings-investment imbalances. Debate also continues regarding the extent to which the realignment of exchange rates could correct imbalances, and more recently non-trade structural policies have been advocated as a useful means of reducing potentially destabilising current account imbalances. Is there a role for trade reform to complement these policy tools? The following section discusses the policies that may be effective in rebalancing the global economy.

Current account imbalances are not necessarily harmful

It is worth emphasising at the outset that current account surpluses and deficits, in and by themselves, are not necessarily harmful; in fact, they can reflect economically beneficial developments. In a country's balance of payments a current account deficit or surplus is by definition matched by the sum of the financial account balance and changes in reserve assets. In other words, a current account deficit (surplus) must be matched by borrowing from (or lending to) the global economy. As a consequence, current account imbalances may reflect the fact that investors are channelling savings into its most productive use or that a country is running a current account deficit today to generate a current account surplus in the future.[7]

But even if current account imbalances build up in the way predicted by the intertemporal trade hypothesis, they can become harmful if they become unsustainable. An economy in a sustainable position cannot indefinitely import more than it exports by relying on financial flows from abroad; the liabilities built up in this way must eventually be paid back. Past experiences of many countries show that the costs of such imbalances are particularly large when adjustments occur in an abrupt manner through a balance of payments crisis. In this context, how a country finances its current account deficit plays an important role in determining the sustainability of the deficit position.

For example, current accounts financed by short-term capital flows are generally perceived as less sustainable than those financed with foreign direct investment, as they bear a higher possibility of financing reversal. This is what happened during the Asian financial crisis of 1997-98, when large current account deficits financed by an increasingly-short maturity structure made countries vulnerable to a reversal of inflows. Moreover, deficits will only be sustainable if the investment that is being funded by foreign borrowing has a higher rate of return than the interest rate charged on the borrowed funds.

Potentially harmful current account imbalances can also arise from underlying economic distortions that have pernicious effects throughout the economy. For instance, high savings rates can reflect low levels of government investment in social services, such as health and education, which provides incentives for households to save excessively. A strategy designed to promote exports at the expense of other countries

7. Ghosh and Ramakrishnan (2006), for instance, give a classic example of a capital-poor developing country in which investment potential exceeds national savings and in which this gap is typically matched by foreign investment, which is reflected in a current account deficit and capital inflows. Yet in practice, capital can also flow in the opposite direction; for example, some large emerging economies with a seemingly high investment potential such as China have been financing current account deficits in high-income countries, such as the United States.

through undervalued exchange rates and policies designed to depress domestic demand can also lead to imbalances. One would expect developing countries, which by their very nature are capital scarce, to have relatively high rates of return and, therefore, to be capital importers. This would suggest that they should have current account deficits, not surpluses.[8] In addition, persistent overconsumption by households and/or governments (low or no savings) can clearly lead to the development of unsustainable imbalances.

A conceptual framework for analysing global imbalances

Abstracting from the nature of factors underlying trade imbalances and assuming that their reduction is desirable, the national savings-investment identity (Equation 1) provides a convenient accounting framework for studying the different possible rebalancing policy options. The identity states that by definition national savings exceed investment by an amount equal to the trade balance, which is also the rate of accumulation of claims on the rest of the world.[9]

$$(S - I) + (T - G) = X - M \qquad (1)$$

where S is the amount of disposable income consumers are willing to save, I is private investment, T are taxes, G represents government consumption, X is exports, M represents imports, and X-M signifies the trade balance.

Equation 1 represents an identity, not an economic model describing a causal mechanism. It simply states that if national savings do not balance out with national investment, then trade is not balanced either, but causality can in principle work in either direction (i.e. national savings and trade balances are jointly determined). This is best exemplified by the seminal analysis of policy options to attain internal and external balance by Swan (1955). Swan's analysis emphasises the fact that expenditure-reducing (increasing) and expenditure-switching policies are two alternative ways to reduce a trade deficit (surplus). Expenditure-reducing policies, such as increases in savings S, reductions in private investment I, increases in taxes T, or reductions in government expenditures G, are measures to reduce overall expenditure. They also all work to reduce a trade deficit because some of the eliminated expenditure translates into lower imports.

Expenditure-switching policies, on the other hand, are those that, for any given level of expenditure, work to improve the trade balance by switching the expenditure away from foreign goods toward domestic goods in a deficit country, or by switching the expenditure from domestic goods toward foreign goods in a surplus country. Some typical examples of expenditure-switching policies include devaluation of the real exchange rate either through devaluation of the nominal exchange rate or price deflation. Trade policy measures such as tariffs (or export subsidies), while not typically used to

8. Again, the Asian experience presents an interesting case. Prior to the Asian financial crisis in 1997-98, most crisis-affected economies had large current account deficits that were growing at very high rates. During the crisis, short-term finance dried up completely, causing these economies to run balanced trade. Since the crisis, they have generally posted large current account surpluses, with a much lower growth trajectory and a large drop in fixed investment.

9. Equation 1 can be interpreted as indicating that investment must by definition be financed either by a nation's domestically generated savings or by funds made available from the rest of the world (Caves *et al.*, 2002).

further macroeconomic purposes, can also act as expenditure-switching policy measures by raising import (export) prices and discouraging imports (encouraging exports).[10]

Expenditure-switching policies have often been seen as beggar-thy-neighbour policies, especially in the context of external adjustment in deficit countries. This is because expenditure is diverted toward domestic products at the expense of trading partners. This can trigger a wave of competitive devaluations. Additionally, trade controls also engender expenditure switching, and despite their temporarily positive effect on output, they may negatively impact welfare. By the same token, the removal of trade controls would be expected to bring about welfare gains and in some circumstances can help a country move closer to internal and/or external balance.

Thus, in principle, expenditure-reducing and expenditure-switching policy options are equally valid ways of achieving external balance or, in the current context, eliminating a trade deficit (surplus).[11] Yet, which approach is preferred depends very much on the current macroeconomic situation. This is because expenditure-reducing policies lessen a trade deficit by decreasing income and employment, while the expenditure-switching policies do so with the effect of raising income and employment. For example, a contractionary fiscal policy pursued in a sluggish economy may help to reduce a trade deficit, but this would come at the expense of output and employment. In contrast, expansionary fiscal policy may help improve internal balance by increasing output and employment, but this would come about in parallel with a worsening of the trade deficit. An expenditure-switching policy, such as a devaluation of the exchange rate or the imposition of a tariff, would raise output while also worsening the trade balance.

Thus, there are trade-offs inherent in the pursuit of internal policy goals, such as maintaining income and employment at an equilibrium level, and external policy goals, such as maintaining balanced trade or reducing the size of a trade deficit or surplus. Attaining the two policy objectives generally requires both expenditure-reducing and expenditure-switching policies. These trade-offs, while highly stylized, are relevant to the current discussion of global rebalancing strategies especially in the context of the stark differences in the macroeconomic situations of some of the deficit and surplus countries in the aftermath of the 2008-09 crisis. For example, calls to increase expenditure in China and to reduce expenditure in the United States to fix external imbalances stand somewhat in contrast to the immediate policy concerns about potential overheating in the case of China and the weak recovery from the 2008-09 crisis in the case of the United States (Section 3).

The exchange rate regime and its relation to the trade balance

At the most fundamental level, an exchange rate is a price of one currency expressed in the units of another currency. In a flexible exchange rate regime, this price is established in the foreign exchange market through equilibration of supply and demand of foreign exchange. The ability of an economy to influence market exchange rates depends largely on its size. On the whole, small open economies take exchange rates as given

10. There is a general agreement among economists that trade restrictions represent an ineffective way of dealing with balance of payments problems. WTO rules addressing the use of trade measures for balance of payments purposes include GATT 1994 Articles XII and XVIII, as well as the Understanding on the Balance-of-Payments Provisions of the GATT.

11. See Caves *et al.* (2002) for a textbook exposition of this argument.

because they generally cannot intervene sufficiently in the foreign exchange market to affect the price of their currency relative to that of a much larger trading partner.

In an economy with capital controls, the supply of foreign currency is equal to export revenue, and the demand for foreign currency is equal to import demand. In such an economy a market determined nominal exchange rate is one mechanism that equilibrates the trade balance; when the supply of foreign currency from exports exceeds the demand for foreign currency its price declines, resulting in an appreciation of the domestic currency. Such an appreciation reduces the attractiveness of exports for foreign partners and increases the attractiveness of imports.

Countries with liberalised capital accounts can run temporary trade imbalances that are by definition financed by capital flows (i.e. a current account deficit has a mirror image in changes in liabilities to the outside world). As discussed, such temporary imbalances may be needed if, for example, an economy is upgrading its capital stock with imported machinery, an investment that would increase productivity and result in repayment of the debts in the future. If such an economy adopts a flexible exchange rate regime, the exchange rate will be determined by both the supply and demand of foreign currency associated with goods and services trade, as well as the supply and demand or foreign currency associated with capital flows. In such a case, the flexibility of the exchange rate in principle helps maintain a sustainable trade balance. A country running a large trade surplus, for example, will have excess supply of foreign currency which will put upward pressure on the domestic currency, resulting in its appreciation and, thus, exercising downward pressure on the trade surplus. With free capital flows, exchange rate adjustments can also come about in a more abrupt manner (e.g. when investors suddenly realise that financing of a trade deficit is unsustainable).

Fixed exchange rate regimes have been adopted in several countries in the past, most notably to stabilise developing or transition economies that were undergoing major structural and macroeconomic changes or struggling with volatile capital flows. In more advanced and integrated economies, most notably in the European Union (EU), adoption of a fixed exchange rate regime and subsequently the creation of a monetary union have been pursued to stabilise nominal exchange rates and minimise disruptions to trade, product and factor markets. Thus, fixed exchange rates have their own advantages in specific circumstances, but this may come about at the cost of exchange rate misalignments as it involves surrendering one of the mechanisms that can facilitate maintaining sustainable internal and external balance. In a fixed exchange rate regime an increase in supply of foreign exchange (e.g. associated with a growing trade surplus) may create an excess supply of foreign exchange instead of resulting in exchange rate appreciation and increased imports. This would mean a build-up in foreign assets or foreign exchange reserves, with no adjustment in product or factor markets.

In market economies that adopt a fixed exchange rate, the adjustment may come about in the form of changes in prices or factors payments (e.g. wages), especially in the absence of impediments to the functioning of product and factor markets. For example, an external surplus puts upward pressure on prices and wages, thereby resulting in real exchange rate appreciation. This is what has been happening gradually in China (Feldstein, 2011), both during the periods of greater and lesser flexibility of the yuan.[12]

12. Feldstein (2011) makes an approximate calculation taking into account changes in the nominal bilateral exchange rate with respect to the US dollar as well as the differential in inflation rates and estimates that the real value of the yuan relative to the dollar is rising at about a 9% annual rate.

The fact that the Chinese currency has been appreciating in real terms through price and wage inflation has been cited as one of the arguments that exchange rate realignment will not solve the problem of imbalances. While, in the medium- to long-term, it is the real exchange rates that economists care about, the fact remains that even in the most liberal economies, prices and wages are more sticky than exchange rates, thereby calling into question whether the observed real exchange rate appreciation in China has been keeping up with what it would have been under a more flexible nominal exchange rate.

China is not the only country contributing to global imbalances and may not even be the single most important country in this respect. Yet, from the point of view of maintaining its own internal and external balance, China's exchange rate regime is a cause for concern. This is not only because the yuan's nominal exchange rate has been tightly controlled, including during the period of partial liberalisation from mid-2005 to mid-2009, but also because, for several reasons, domestic prices and wages in China may not adjust to external shocks as swiftly as they do in more mature market economies.[13] It is also argued that a large economy like China can achieve adjustment in the real exchange rate via flexibility in the nominal exchange rate more easily than via price flexibility (Frankel, 2005). The extent of possible undervaluation of the yuan is a hotly debated topic which goes beyond the scope of this paper. Nevertheless, it is clear that any rebalancing must involve adjustments in real exchange rates (either through nominal exchange rates or through prices), and that policies in place in China impede some of the key mechanisms through which such an adjustment would normally happen.

Structural policies in the rebalancing process

Structural policy reforms, which are aimed at improving long-term levels of GDP per capita, are needed to address the weaknesses exposed by the recent economic crisis and reduce the risk of future crises. Structural reforms also aim to boost competitiveness and, in the current context, ensure that the currently low employment levels in many developed countries do not become permanent. While structural reforms are not generally designed to address global imbalances, they can affect current accounts by influencing households' and firms' saving and investment decisions, as well as by altering public saving and investment.

Growth-enhancing structural reforms can also have beneficial knock-on effects on current account imbalances (OECD, 2011b). In particular, reform of product market regulation positively influences GDP per capita, with long-term gains in living standards realised relatively rapidly (OECD, 2011b). Implementing meaningful and targeted structural reforms has also been shown to not only enhance living standards, but also contribute to more balanced fiscal positions, as well as to lower global current account imbalances.

Other work by the OECD suggests that structural policies, including product market regulation, labour market policy, social welfare systems, tax policy, and financial market regulation, can impact current account balances (Kerdrain *et al.*, 2010). This approach largely focuses on how structural factors affect the left side of the national savings-

13. The recent *OECD Economic Survey of China* (OECD, 2010e) concludes that prices are generally determined by market forces in China. However, the same publication lists a number of areas in which more or less severe price control mechanisms are in place. This is, for example, the case with electricity and other energy prices. There is also a mention of policies that attempt to influence inflation by controlling individual prices.

investment identity (i.e. savings and investment). The research employs a combination of empirical techniques using two different datasets covering both OECD and non-OECD countries to estimate the relationship between current account balances as a share of GDP and a set of structural policy indicators.

The results suggest that structural policy reforms influence current account balances by altering the macroeconomic setting. This analysis also finds some evidence that structural policies influence current account balances through other channels. Higher social spending, particularly on health care, is associated with a lower savings rate and current account balance. Other types of structural reforms, such as regulatory changes in financial markets, are also associated with improvements in the current account, suggesting that structural policy reforms, in addition to macroeconomic tools, can play a useful role in rebalancing the global economy.

Can trade policy be used as a tool for rebalancing the global economy?

While much has been said about macroeconomic and non-trade structural policies in the context of global imbalances, trade policy has been somewhat neglected. Macroeconomic policies have undoubtedly been one of the key contributors to the build-up of imbalances prior to the economic crisis, and they will thus have to be an integral part of the solution. However, expenditure-changing policies are unlikely to be sufficient and may in fact be problematic to implement given the nature of existing internal imbalances in countries with the largest deficits and surpluses. The contrasting situations of the two countries at the heart of the global imbalances debate underscore that some type of expenditure-switching policies may be needed to rebalance the global economy.

That some expenditure-switching may be needed is already reflected in the *de facto* appreciation of the Chinese currency that is coming about through gradual nominal price or wage inflation differentials, and in repeated calls on China to allow the nominal exchange rate of its currency to appreciate yet further (OECD, 2010b). Expenditure-switching through appreciation of real exchange rates by surplus countries would help, but exchange rate shifts are perceived to be of a win-lose nature and thus bear the risk of triggering a wave of competitive devaluations. Additionally, it is uncertain whether China – the world's largest surplus country – will alter its exchange rate policy any time soon.

Although an inefficient and potentially dangerous way of addressing current account imbalances, trade restrictions in principle represent another type of expenditure-switching measure that affects rebalancing. Indeed, global imbalances could be reduced or even eliminated by restricting trade and investment flows. However, moving toward protectionism or putting off further liberalisation efforts are certainly not the best strategies to pursue. For one, some current account imbalances can be desirable, so it is hard to know how much imbalances should be reduced in general. Desirability and sustainability might even be hard to assess on a country-by-country basis. In this context, the uncertainty surrounding the benefits of reducing imbalances must be weighed against the benefits of trade and investment, including efficiency gains related to specialisation according to comparative advantage, economies of scale, access to a wide variety of intermediate and final products, and technology transfer. Moreover, trade restrictions can lead to potential retaliation by trading partners, resulting in lower welfare overall.

But protectionism is not the only way trade policies can contribute to the rebalancing process. Indeed, while a real exchange rate appreciation by surplus countries or protectionism in deficit countries could bring about external rebalancing, so would the removal of trade controls that impede imports in surplus countries, or the removal of impediments to exports in deficit countries. Trade theory, empirics and experience clearly demonstrate that trade liberalisation can generate welfare gains in both the liberalising countries and their trading partners.

That trade policy distortions may be related to global imbalances has been demonstrated in a few recent contributions. Deardorff (2010), for example, used a simple two-country model of trade based on comparative advantage and demonstrated that implicit or explicit subsidisation can lead to the accumulation of trade surpluses and deficits that work against a country's comparative advantage. The distortions cause trade imbalances to be welfare-reducing and flow in the 'wrong' direction – that is, distortions divert capital flows toward the country that does not have a comparative advantage in future production. Removing such subsidies would both enhance welfare and reduce imbalances. Crucially, this result hinges on an implicit assumption that financial markets would be willing to finance the welfare-reducing imbalances that flow in the "wrong" direction.

Barattieri (2010) presents an alternative inter-temporal trade model in which current account imbalances emerge as a result of asymmetric liberalisation of goods and services. He shows that a country specialised in the production of services, whose products suffer from higher trade barriers now and are to be liberalised in the future, accumulates net foreign liabilities in anticipation of a future improvement in the relative price of its products and higher incomes. By the same token, the anticipation of a future reduction in impediments to trade in services increases savings in the services-importing countries. This result is an outcome of inter-temporal optimisation and thus by definition implies that the emergence of current account deficits and surpluses is sustainable. Yet, the welfare costs of asymmetric trade barriers are not taken into account.

It is perhaps difficult to capture all of the real and financial aspects of imbalances in a formal intertemporal model that would also be capable of accounting for the welfare costs of trade distortions. Nevertheless, intuitively the comparative advantage principle can also be a useful guide in thinking about global imbalances in a more traditional, static sense. Quite simply, a welfare-reducing trade imbalance could arise between two countries if the levels of trade protection are asymmetric and if, for some reason, there is appetite in financial markets to finance such trade.[14] If one country (say China) has a comparative advantage in the production of labour-intensive products (goods), and the other country (say United States) has a comparative advantage in the production of human capital- or technology-intensive products (services), then any asymmetries in the structure of trade barriers could result in the build-up of unsustainable (and welfare-reducing) imbalances. This would be the case if import barriers are persistently higher in services than in goods in both countries, or if one of the countries has higher import barriers on both products. A liberalisation scenario that alleviates this asymmetry would result in both the reduction of imbalances as well as welfare gains for both countries.

14. Presumably, such a model would have to assume some kind of disequilibrium or asymmetric information to be consistent with the financing of such welfare-reducing trade flows.

3. The evolution of current account imbalances and the macroeconomy

World current account imbalances as a share of GDP increased markedly since the late 1990s, a shift that has had important impacts on the macroeconomy. The following section explores the evolution of global imbalances and recent developments at the macroeconomic level using 2007 – the year preceding the economic crisis – as a reference year.[15]

The aim of this paper is to assess the impact of trade reforms on the unwinding of world current account balances. Taking this global perspective abstracts somewhat from individual country experiences. For example, the year 2007 – when world current account imbalances peaked – does not necessarily coincide with the year in which individual countries experienced peaks in their own current account balances. To address this limitation, care has been taken when drawing policy conclusions for broad categories of "surplus" and "deficit" countries.

External imbalances emerged pre-crisis and persist in the recovery

When analysing the current account balances of the ten countries with the largest current account surpluses and deficits in 2007 one observes a marked shift toward Asia (Table 1).[16] Only two of the economies with a current account surplus in 2007 are not high-income – China and Malaysia. But half of the surplus countries are Asian – China, Japan, Singapore, Chinese Taipei and Malaysia. This is a marked contrast from 1996 – the year when current account imbalances began to increase significantly – when only China (9) and Chinese Taipei (8) made it into the top ten. On the deficit side, all of the countries are high- or middle-income countries (and all OECD members except Romania). The opposite trend appears here, as several emerging economies[17] moved out of the top ten deficit countries in the 11-year period (1996-2007) and more high-income, largely European countries[18] moved in.

Economists often view the current account as a way to smooth consumption and savings over time. Countries are expected to save (current account surplus) in good times and to consume more (dissave) either in bad times or to invest in productivity-enhancing products or processes. Over time, the good and bad times should even out, and this should be reflected in the current account. But a pattern has emerged in which some economies are producing persistent surpluses and deficits. The top three deficit countries (United States, Spain and the United Kingdom) have run current account deficits in every single year since 1990. Japan and China, two of the top three surplus economies, have run surpluses in every year since 1990 (except for China in 1993), and Germany shifted from persistent deficits in the period 1990-2000 to surpluses ever since.

15. The year 2007 is used to abstract from the effects of the 2008-09 crisis on underlying economic indicators, including trade flows. While the crisis may have altered underlying economic conditions permanently, it is impossible to determine medium- or long-term impacts, if any, with the data currently available.

16. This ranking excludes large net oil exporters.

17. Brazil (2), Korea (3), Thailand (5), Indonesia (8), Argentina (9), and India (10).

18. Spain, Italy, Greece, Turkey, France, Romania, and Portugal all moved into the top ten during this time.

Table 1. Top ten surplus and deficit economies

Absolute value

Surplus economies			Deficit economies		
1996	2007		1996	2007	
9	1	China	1	1	United States
102	2	Germany	26	2	Spain
1	3	Japan	7	3	United Kingdom
3	4	Netherlands	4	4	Australia
5	5	Switzerland	118	5	Italy
10	6	Sweden	15	6	Greece
6	7	Singapore	25	7	Turkey
8	8	Chinese Taipei	116	8	France
12	9	Canada	23	9	Romania
92	10	Malaysia	12	10	Portugal

Note: In 1996, Germany and Malaysia both ran deficits, while Italy and France posted surpluses.
Source: Authors' calculations based on IMF BOPs.

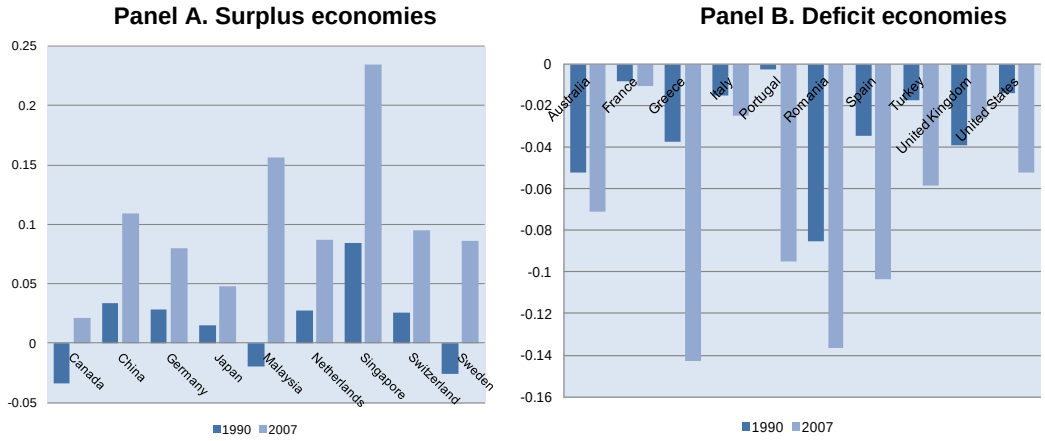
Table A.1 provides the current account balances in absolute values and tracks their evolution over time. All of the deficit countries in 2007 also posted deficits in 1990; on the surplus side, three economies switched from deficits in 1990 to surpluses in 2007. Comparing the country concentrations with the largest ten surpluses and deficits, surpluses were more evenly distributed with China, Germany and Japan accounting for respectively 33%, 23% and 19% of the total in 2007. On the deficit side, the United States' deficit accounted for 60% of the top ten total, while those of the United Kingdom and Spain accounted for 12% and 6%, respectively. In absolute terms, the United States' 2007 deficit of USD 718 billion dwarfed all the other deficits and surpluses. China's surplus in that year amounted to USD 372 billion (Table A.1).

What is striking about the evolution of current account balances is the degree to which deficits and surpluses have grown in the period 1990-2007 (Figure 1). Concerns about the ability of many of the deficit countries to finance these large deficits (e.g. Greece and Portugal) and about the ability of surplus countries to sustain current growth paths have since manifested themselves and look set to continue in the short-term. It is precisely because of these concerns that policymakers are putting "rebalancing" high on the international agenda.

In the deficit economies (apart from Turkey), the portfolio and other investments elements – not FDI – contribute the most to the overall financial account balances (Figure 2). This pattern has not changed much over the 11-year period. Given that current account imbalances are more sustainable in the medium-term if they are financed by FDI, which is less subject to sudden reversals, it appears that the largest deficit countries may have difficulties continuing to run deficits with the current structure of their balance of payments. As a result, encouraging FDI is an important element of any policy package designed to help reduce unsustainable imbalances.

Figure 1.Current account balances as a share of GDP

1990 and 2007

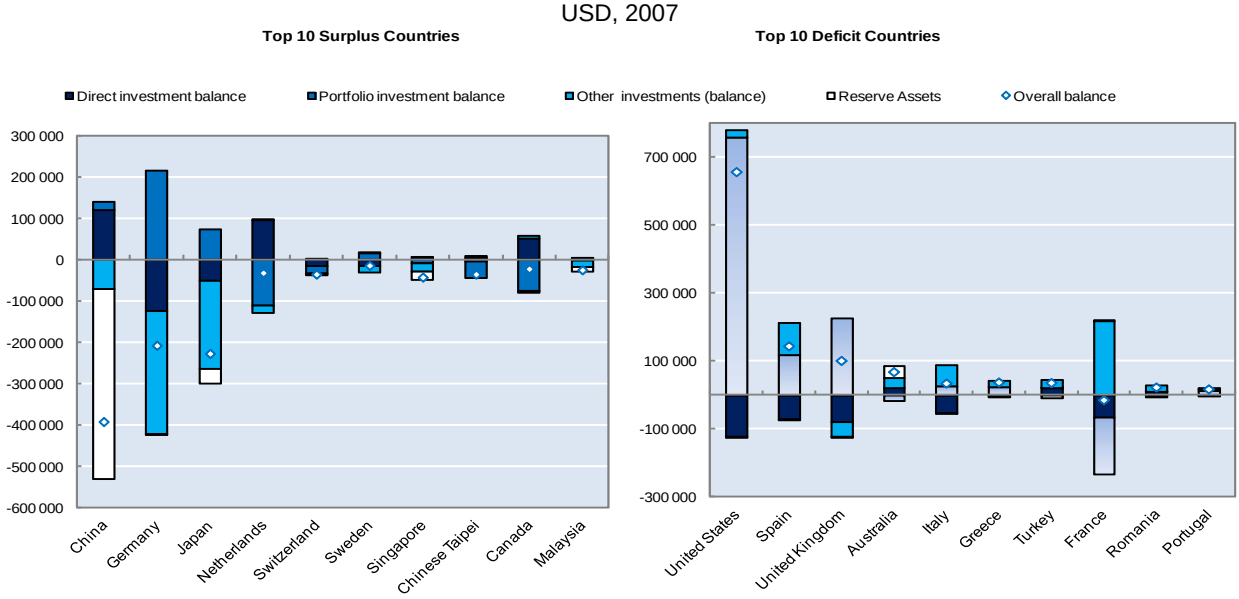


Source: IMF BOPS and World Bank Development Indicators.

Asian countries, particularly developing Asian countries, are playing a larger role in financing other countries' deficits, and that this has come in the form of portfolio and other investments, as well as reserve assets in the case of China, which is less sustainable than FDI because it can be more easily reversed. The data currently available suggest that the countries on the deficit side do not have particularly restrictive policies toward trade in services. We find that the deficit countries (apart from Turkey) do not exhibit overly restrictive services regimes (Table A.7 and Figure 5, Panel A). While these measures are imperfect and more robust measures covering a wide variety of developed and developing economies are needed, these data provide some indication that the current "puzzle" of why the less developed surplus countries are choosing to invest in the deficit countries via portfolio and other means (i.e. less stable ways of financing a current account deficit) is not due to overly burdensome restrictions to direct investment.

Figure 2. Structure of the financial accounts of the top ten deficit and surplus countries

USD, 2007



Source: Authors' calculations based on IMF Balance of Payments data.

Rebalancing in the current macroeconomic context

The current macroeconomic situation plays an important role in determining which rebalancing options are most appropriate for surplus and deficit countries. The challenge stems from the trade-offs inherent in the pursuit of internal policy goals, such as maintaining income and employment at an equilibrium level, and external policy goals, such as maintaining balanced trade or reducing the size of a trade deficit or surplus.

Growth and inflation concerns emerge in the post-crisis period

The macroeconomic consequences of the global economic crisis are clear (Table A.2). None of the economies surveyed grew more in 2009 than at the onset of the global economic crisis. The crisis has been particularly pronounced in the deficit countries, with all economies except Australia's contracting in 2009. Some of the surplus economies were also hard-hit, particularly those that are relatively more dependent on exports (e.g. Malaysia and Singapore). This is in part due to the rise of vertical integration and product fragmentation, which increased the trade and investment linkages with other economies, particularly in Asia, and amplified the impact on trade.

Asia will play an important role in rebalancing, even if some of the Asian economies are not among the major surplus and deficit economies. China's real GDP growth (9.1% year-on-year), and to a lesser extent India (7.7%) and Viet Nam (5.3%) in 2009, underscore that the region will remain important for stimulating global demand.

In response to the significant stresses of the global economic crisis in 2008-09, many economies introduced unprecedented stimulus packages to help blunt the impact of the crisis on the real sector. In China, the stimulus programme was a mix of government spending and a large-scale increase in credit by banks partly owned by the State (Cao *et al.*, 2010).[19] In the United States, the United Kingdom, and Japan, monetary easing was combined with large fiscal stimulus. In 2008, the United States adopted a USD 787 billion stimulus programme worth 1.9% of GDP.

Growth appears to have picked up in the recovery period, particularly in Asia. The OECD forecasts China's GDP to grow over 9% in 2011-13; India's projected growth rate is around 8% for the same period (OECD, 2010c). Other Asian economies are also expected to experience positive, high growth in the short- and medium-term (Figure A.1, Panel A). Stronger growth in 2010 in many economies is in part a response to the significant stimulus packages that were implemented to combat the effects of the crisis. The effects of the stimulus programs may be narrowing and this creates uncertainties for the medium-term outlook; however, the medium-term outlook is expected to be brighter for the largest economies in developing Asia as compared to the OECD (OECD, 2010d).

China and India stand out as the most dynamic and fast-growing economies in Asia. The short- and medium-term growth forecasts for the largest Southeast Asian countries are higher than in most OECD economies, but they are nevertheless lower than China's and India's. The OECD countries are experiencing a more moderate recovery, and growth rates are expected to remain somewhat lower than trend at least in the short-term for most of the OECD area.[20] One of the implications of slower growth in the OECD area is that Asian economies must become less reliant on exports to OECD countries (e.g. Japan, the United States, and Europe).

19. China's stimulus programme amounted to USD 586 billion in 2008, or 2.1% of GDP.

20. The United States is an exception; it is expected to grow at almost 3.5% in 2012.

Inflation is another area of concern to policymakers in the rebalancing debate, and the pace of recovery in each surplus and deficit economy is reflected in the inflation figures (Table A.3). While the data show moderate deflation in China in 2009, the OECD forecasts consumer price inflation to increase slightly from 3.1% in 2010 to 3.3% in 2011 and 3.0% in 2012 (over the previous period) (OECD, 2010c). In contrast, the deficit countries (apart from Turkey) are not currently experiencing (nor are they forecast to experience) inflationary pressures. In fact, the data points to modest deflation in many of the deficit countries (including the United States).

Shifting domestic demand is a key feature of the rebalancing process

To a large extent, reducing global imbalances will require shifts in domestic demand, which can take place through changes in investment, consumption, and policies that affect government spending. In particular, as governments find less space for fiscal stimulus, private domestic demand must pick up the slack. Indeed, economies with relatively lower shares of domestic consumption in GDP have been hit harder by the crisis (e.g. Singapore and Malaysia). Relatively lower rates of domestic consumption put more of a burden on governments during economic contractions because households are less inclined to drive growth (Figure A.2).

Precautionary savings may also be contributing to relatively muted levels of consumption, at least in some of the developing Asian surplus economies. Public expenditure on health, for example, is relatively low. In 2009, public expenditure on health in China amounted to 2.3% of GDP, 2.2% of GDP in Malaysia, and 1.6% of GDP in Singapore (Table A.6). This could be contributing to precautionary savings on the part of households, who save excessively to provide for unexpected (and uncovered) future health care costs. Recent OECD work suggests that an increase in public health spending would reduce China's current account surplus by as much as 2.5 percentage points of GDP (OECD, 2011b).

Corporate and government savings are also playing an important role in contributing to China's high savings rate. Indeed, corporate and government saving rates began to increase significantly around 2004, the same time that current account balances also began to rise steeply (Wang, 2011). Chinese state-owned enterprises (SOEs) are ubiquitous in some of the higher-margin sectors, such as telecommunications, finance, energy, real estate, and transportation, and preferential government treatment (e.g. easy credit from state-owned banks and barriers to entry) ensures that these SOEs retain a large stake of the market (Wang, 2011). Starting in 2004, robust SOE earnings translated into corporate and government savings, contributing to the current account imbalances that persist today. Reform of the financial sector and the reduction of trade-related entry barriers in sectors in which SOEs are concentrated – many of which are services sectors – would help reduce global imbalances. These and other policy reforms aimed at increasing competition would benefit the domestic market by increasing efficiency and promoting economic growth in the long-run.

Other structural policies, such as those related to the labour market, may also be contributing to the build-up of current account surpluses. Some research suggests that factor market distortions may be contributing to China's very large current account surplus. Huang (2010), for example, argues that the Chinese household registration system discourages labour mobility, and discrimination against migrant workers remains prevalent, putting downward pressure on the wages of migrant workers. This can be seen as a type of subsidy for producers, increasing the competitiveness of domestic firms (and

generating higher returns to investment), thus contributing to current account imbalances. Moreover, this brand of distortion in the labour market depresses household incomes, which in turn reduces domestic consumption, an important channel of shifting resources toward domestic activities.

Investment is another mechanism for shifting the composition of domestic demand, and foreign direct investment (FDI) plays a pivotal role in increasing domestic productivity through technology transfer. Table A.4 presents FDI as a share of GDP in the surplus and deficit economies. FDI generally declined over the 2008-09 period for most countries, particularly the more open economies of Singapore and Malaysia. Singapore, one of the hardest hit Southeast Asian economies in the most recent crisis, posted a substantial decline in FDI as a share of GDP between 2007-08. Policies designed to boost investment – particularly FDI, which has been shown to have positive spillovers in the domestic economy – may represent one component of the rebalancing package for some deficit countries.

4. Trade solutions to the rebalancing process

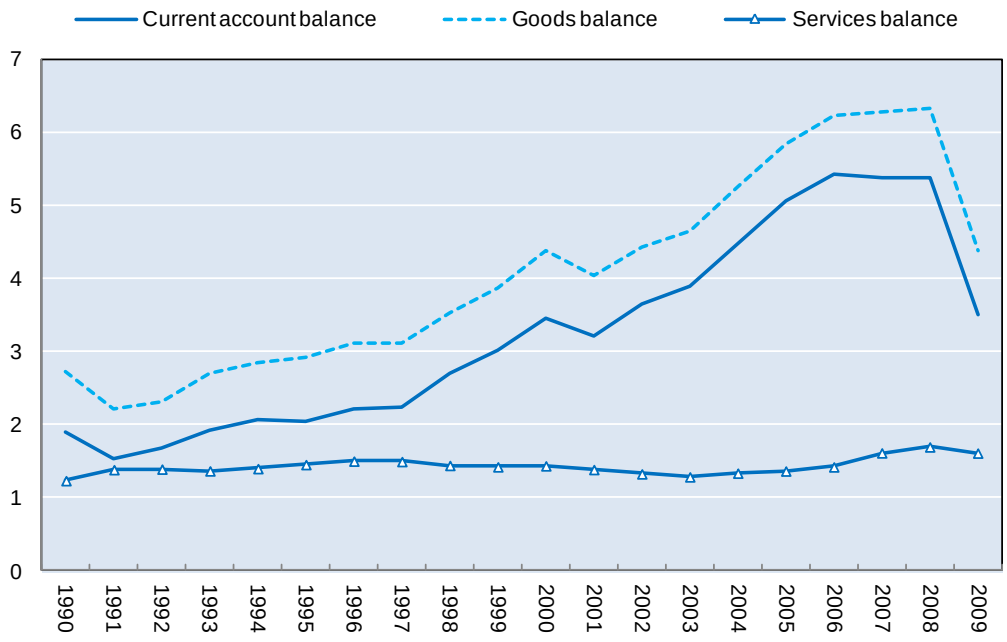
The extent to which trade and other related policy reforms can usefully contribute to the rebalancing process is an empirical question, although *a priori* theory and some analysis suggest that the macroeconomic rebalancing process could be helped by appropriate trade policies that would at the same time support the global economic recovery (Claessens *et al.*, 2010). The principal purpose of this section is to investigate in greater detail how changes to trade-related policies may contribute to the rebalancing process.

The build-up of global current account balances was driven by goods…

First, we consider whether the evolution and structure of global imbalances in the run-up to the economic crisis point to welfare-reducing and imbalance-enhancing distortions. Strikingly, the build-up of global current account balances – measured as the sum of the absolute value of world current account balances divided by world GDP – that began in the mid-1990s was driven by the goods side of the trade account (that is, imbalances related to trade in goods have contributed the most to global imbalances since the mid-1990s) (Figure 3). In fact, the contribution of the goods sector to imbalances doubled from below 3% of world GDP in mid-1990s to above 6% in the late 2000s.

Figure 3.Composition of current account balances, 1990-2009

Absolute values of respective imbalances divided by world GDP

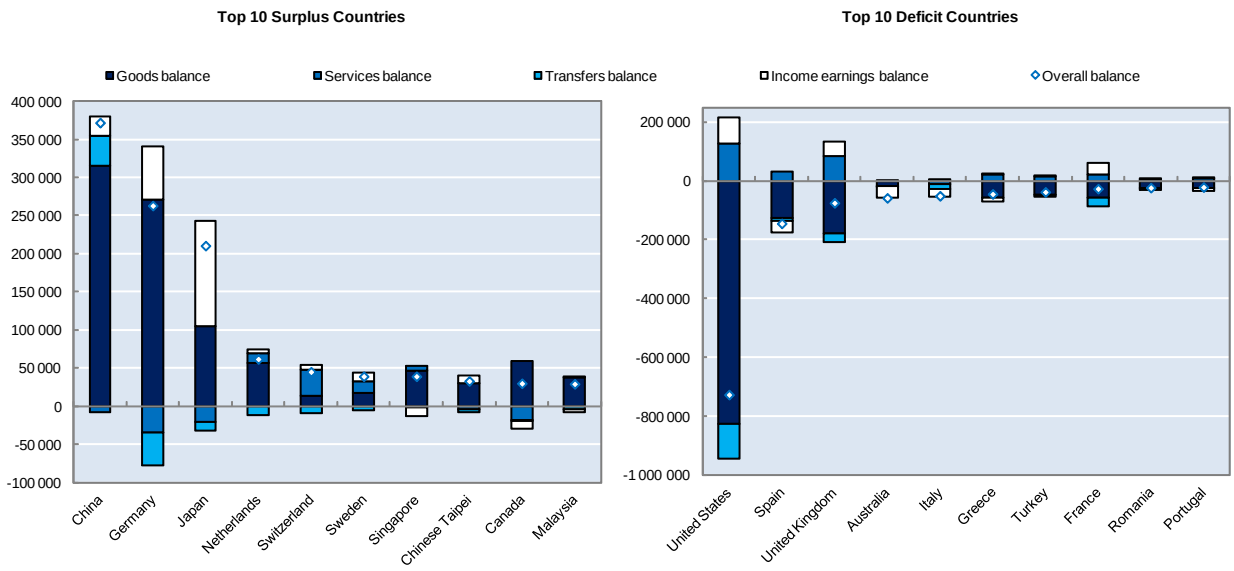


Source: Authors' calculations based on IMF Balance of Payments data. For presentational purposes, net income and transfers, the other two components of the Current Account, are omitted.

In contrast, the contribution of services trade to global imbalances has remained relatively constant at around 1.5% of world GDP over the period, albeit with a slight upturn in 2007-08. Of course, the current account does not capture all of the channels through which services are traded,[21] but this potential bias would not be expected to change over time. It is also hard to resist comparing the timing of the emergence of this disparity (the mid-1990s) and the conclusion of the Uruguay Round of trade negotiations (1994), especially since some economists argue that the commitments in goods delivered more actual trade liberalisation than those in services.[22] Thus, these trends may suggest a growing divergence in the structure of trade protection for goods and services, especially given the fact that the countries that account for the bulk of the large deficits in goods are relatively specialised in services sector.

Figure 4. Structure of the current accounts in the top ten deficit and surplus countries

USD, 2007



Source: Authors' calculations based on IMF Balance of Payments data.

In 2007, nine out of the ten countries with the largest current account deficits recorded negative balances on goods trade and, at the same time, positive balances on services trade (Figure 4). All surplus countries recorded a positive balance on goods trade and the three countries with the largest surpluses (China, Germany, and Japan) as well as Chinese Taipei and Canada had at the same time a negative services trade balance (Figure 4). In all of the Asian countries with large current account surpluses such as China, Singapore, and Malaysia, positive balances on goods trade dwarfed small deficits

21. The services category in the current account does not cover two important modes of services delivery (mode 3 services trade (commercial presence) and mode 4 services trade (temporary migration of labour)). Mode 4 is captured in the capital account; Mode 3 is not included in the Balance of Payments, but rather in statistics on sales of foreign affiliates.

22. Hoekman (1995), for example, provides an assessment of the Uruguay Round Agreement commitments on services and their failure in terms of generating liberalisation. Recently, Barattieri (2010) finds an asymmetry in the liberalisation of goods trade versus service trade using the concept of the constructed home bias index. While the index for manufacturing trade, available from 1994, has been declining since the mid-1990s, the index for services has been virtually flat.

on services trade. This general pattern is consistent with the "Kuznets" development trajectory of less developed countries concentrating in manufacturing exports and the higher income countries moving toward greater exports of services.

…and is related to the prevailing structure of comparative advantage and trade barriers

This section analyses the structure of trade and trade protection with a view to understanding the mechanisms whereby trade policy reform could help in rebalancing the global economy.

Trimming tariffs, particularly in certain sectors, would help global rebalancing and increase efficiency

It is important to assess whether the deficit countries – which need to export more – face relatively high tariff barriers in the products in which they have a comparative advantage. It is also useful to analyse how reducing tariffs in the surplus economies may benefit their domestic economies. This sub-section analyses the structure of trade protection in conjunction with a measure of revealed comparative advantage (RCA) in the surplus, deficit, and other major economies[23] with the aim of identifying pockets of protection that may help global rebalancing and at the same time bring benefits to the liberalising country's domestic economy. While comparative advantage is a static concept and may thus have shifted since the reference year (2007), this is nevertheless a good point in time to investigate given that the drastic (and temporary) trade fall during the 2008-09 crisis may obscure underlying patterns of comparative advantage.

A RCA index is used as a proxy for revealed comparative advantage (and thus export potential).[24] This measure has certain drawbacks that should be borne in mind when interpreting the results, such as an aggregation bias and the inability to determine whether the RCA index is influenced by policy, underlying structural factors, or some combination of the two.[25] Another drawback of the RCA index is that the mean of the standard RCA also becomes larger when a more detailed sector classification is used, and the distribution around the moving mean of the standard RCA is dependent on the number of countries and sectors distinguished. Nonetheless, it is a widely-used and useful indicator.

23. All surplus, deficit, and G-20 economies – representing 85% of global GDP – are included in this analysis except for Russia, Romania, and Mexico (due to data constraints).

24. This paper follows Balassa (1965), whose approach is to use normalised export shares to evaluate export performance of individual industries. This normalisation is calculated by dividing the export share of country *i* in the world exports of individual commodity *j* by a country's share in the combined world exports of manufactured goods (a). Alternatively, the same index can be expressed as the ratio of commodity *j*'s share in country *i*'s total exports and *j*'s share in world total exports (b).

$$RCA_{ij} = \frac{\frac{X_{ij}}{X_{wj}}}{\frac{X_i}{X_w}} \quad (a) = \frac{\frac{X_{ij}}{X_i}}{\frac{X_{wj}}{X_w}} \quad (b)$$

25. See Kowalski and Bottini (2011) for a comprehensive discussion of the concept of comparative advantage and its application.

Using 2007 as a reference point, tariff data and the RCA index are presented at the 2-digit and 4-digit levels using the Harmonised System (HS) classification (Tables A.8-A.11). While a RCA index greater than 1 indicates comparative advantage, we choose RCA indexes above 2 as a threshold measure of comparative advantage. While this threshold is somewhat arbitrary, it nonetheless identifies those sectors in which export specialisation is relatively strong.

At the 2-digit level, comparative advantage in both agriculture and non-agriculture products is identified across the deficit countries. Some countries show comparative advantage in relatively few sectors (e.g. the United Kingdom, five out of 99 HS chapters), but others relatively more (e.g. Turkey, 24 out of the 99 HS chapters). Certain countries tend to concentrate in related sectors. For instance, Turkey, Italy and Portugal show comparative advantage in textile- and clothing-related sectors. Australia and Greece tend to specialise in exports of agriculture goods and natural resources, while Spain and France demonstrate a comparative advantage in food-related industries. The United Kingdom and the United States tend to show comparative advantage in the fewest 2-digit sectors, but they cover both food-related and high-value added industries (beverages and pharmaceuticals in the case of the United Kingdom, and cereals and aircraft in the case of the United States). This analysis does not imply that these countries do not have strong comparative advantage overall, but rather that they specialise more intensely in products at a higher level of aggregation.

To paint a more comprehensive picture of the deficit countries' export potential, and to gauge where pockets of protection may be impeding global rebalancing, ten sectors have been identified that may facilitate the rebalancing process. These are primarily sectors in which several deficit economies show revealed comparative advantage at the 2-digit HS level (Table 2).[26] We then move to a more detailed analysis at the 4-digit level in the ten selected HS chapters to assess if there are products in which deficit countries have a comparative advantage and where they face relatively higher tariffs with their current (or potential) trading partners.

Table 2. Export potential in the deficit countries

2-digit HS chapters, 2007

H0-11	Products of the milling industry; malt; starches; inulin; wheat gluten
H0-22	Beverages, spirits, and vinegar
H0-28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements, or of isotopes
H0-29	Organic chemicals
H0-30	Pharmaceutical products
H0-33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations
H0-47	Pulp of wood or of other fibrous cellulosic material; waste and scrap of paper or paperboard
H0-49	Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans
H0-61	Articles of apparel and clothing accessories, knitted or crocheted
H0-84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof

Source: Authors' calculations based on UN TRAINS data.

In HO-11 (products of the milling industry), Australia has a comparative advantage in HO-1107 (malt), but Argentina, which also has a comparative advantage in this product, imposes a relatively high tariff in this product category (MFN applied tariff of 14%,

26. See Tables A.8 and A.9 for a complete listing of comparative advantage industries in the deficit, surplus and major economies.

compared to the average MFN rate for developing countries of 6.3%), with a binding of 35%. Italy and Portugal concentrate in HO-1102 (cereal flours ex. wheat or meslin), and India, which also has a comparative advantage in this product category, applies a 3% MFN tariff with a 150% bound rate (the average MFN tariff for developing countries in this product category is 13%). Reducing tariffs in these product categories would benefit the surplus countries by reducing trade-related distortions in the domestic economy, in addition to helping global rebalancing by facilitating exports in the deficit economies.

There appears to be less scope for reducing global imbalances through tariff reductions in HO-22 (beverages, spirits and vinegar). The products in which the deficit economies demonstrate comparative advantage[27] do not match up with the surplus and other major economies very well. However, there are several instances of relatively high bound rates in some product categories. South Africa, for example, has bound its applied tariff on HO-2204 (wine) at 88.6%, although its MFN applied rate of 25% is below the average rate for developing countries. Yet half of the deficit countries demonstrate comparative advantage in wine, and so even modest tariff reductions in this product category would facilitate deficit country exports.

The deficit countries show a much wider range of comparative advantage in HO-28 (inorganic chemicals). For example, 31 product categories at the 4-digit level show potential for increased exports. Overall, the United States demonstrates comparative advantage in the most product categories, although there are two products in which four of the deficit countries have an export specialisation – HO-2828 (hypochlorites)[28] and HO-2824 (lead oxides).[29] On the surplus side, China emerges with relatively higher tariffs. China shows export specialisation in 14 product categories at the 4-digit level,[30] and applies a 5.5% MFN tariff (5.5% binding) across all of the 14 product categories. The deficit countries have a comparative advantage in four of these products (HO-2820, HO-2822, HO-2825, and HO-2833). Argentina, Brazil, and India represent other major economies that show a comparative advantage in some of the same products as the deficit economies together with MFN tariffs that are above the average rate for developing countries. These tariffs are up to 12.5% in some product categories, and bound rates can be as high as 40%. Reducing tariffs would help diminish trade-related inefficiencies, thus setting the surplus economies on a more sustainable long-term growth path.

27. Primarily HO-2204 (wine) in Australia, France, Italy, Portugal, and Spain, HO-2205 (vermouth and other flavoured wine) in Italy, Portugal and Spain, HO-2208 (undenatured ethyl alcohol) in France, Greece, and the United Kingdom, and HO-2209 (vinegar) in Greece, Italy and Spain.

28. France, Portugal, Spain and the United States.

29. Italy, Portugal, Spain and the United Kingdom.

30. HO-2805 (alkali and rare earth metals), HO-2820 (manganese oxides), HO-2821 (iron oxides), HO-2822 (cobalt oxides), HO-2825 (hydrazine and hydroxylamine), HO-2826 (fluorides), HO-2827 (chlorides), HO-2830 (sulphides), HO-2831 (dithionites and sulphoxylates), HO-2833 (sulphates and persulphates), HO-2835 (phosphinates) HO-2841 (slats of oxometallic or peroxometallic acids), HO-2846 (compounds of rare-earth metals), and HO-2849 (carbides).

Canada exhibits a strong comparative advantage (3.84 RCA) in HO-2817 (zinc oxide), but applies a 2.8% MFN tariff and a 5.5% binding (the average MFN rate for high-income economies is slightly lower, at 2.3%). Germany, another high-income surplus economy, shows a comparative advantage in nine products at the 4-digit level, six of which are also comparative advantage industries in the deficit countries.[31] Germany's MFN tariffs on these products are above the average rate for high-income countries. In Japan, three product categories are shared with the deficit countries, and MFN tariffs are above the average rate for high-income economies.[32] The Netherlands and Sweden both demonstrate a comparative advantage in HO-2847 (hydrogen peroxide), and apply MFN tariffs of 5.5%, a rate that is above the 2.9% average for high-income countries.

In the organic chemicals sector (HO-29), China shows comparative advantage in ten product categories. Among these ten 4-digit lines, six overlap with the deficit countries (that is, both China and at least one deficit country demonstrate comparative advantage above 2).[33] China's MFN tariffs in these products are above the average for developing countries. In Argentina, Brazil, India, Indonesia and Saudi Arabia there are also product categories in which export specialisation exists and tariffs are above the average for the given economy's reference group. This is particularly the case for India, where applied MFN tariffs of 12.5% (40% bound) are applied at all of the 4-digit tariff lines in this category.[34] In Germany,[35] Japan,[36] and the Netherlands,[37] the same situation exists, although applied MFN rates are lower than in the case of China (they range from 3.3-5.7%).

In HO-30 (pharmaceuticals), there is more modest evidence at the 4-digit level suggesting that asymmetries in the structure of protection are contributing to global imbalances. The only overlapping product category is HO-3003 among India, the United States and Spain. India applies a 12.5% MFN tariff in this product category (bound at 38.8%), compared to an average for developing countries of 4.4%.

31. The product categories in common with Germany and the deficit countries include: HO-2806 (hydrogen chloride), HO-2808 (nitric acid), HO-2812 (halides), HO-2823 (titanium oxides), HO-2932 (sulphites thiosulphites), and HO-28-43 (colloidal precious metals).

32. HO-2812 (halides), HO-2820 (manganese oxides), and HO-2823 (titanium).

33. The overlapping product categories include: HO-2908 (halogenated, sulphonated, nitrated derivatives of phenols), HO-2919 (phosphoric esters and their salts), HO-2925 (carboxymide-function compounds), HO-2931 (other organo-inorganic compounds), HO-2938 (glycosides), and HO-2941 (antibiotics).

34. Product categories that can facilitate exports from the deficit countries to India include: HO-2904 (sulphonated, nitrated derivatives of hydrocarbons), HO-2908 (halogenated, sulphonated, nitrated derivatives of phenols), HO-2911 (acetals and hemiacetals), HO-2912 (aldehydes), HO-2925 (carboxymide-function compounds), HO-2939 (vegetable alkaloids), and HO-2941 (antibiotics).

35. The overlapping categories for Germany and the deficit countries are: HO-2910 (epoxides), HO-2912 (aldehydes), and HO-2929 (compounds with a nitrogen function).

36. The overlapping categories between Japan and the deficit economies include: HO-2903 (halogenated derivatives of hydrocarbonds), HO-2907 (phenols), HO-2919 (phosphoric esters and their salts), and HO-2930 (organo-sulphur compounds).

37. The Netherlands and the deficit countries share a comparative advantage in the following products: HO-2910 (epoxides), HO-2912 (aldehydes), HO-2914 (ketones and quinines), HO-2915 (saturated acyclic monocarboxylic acids), HO-2926 (nitrile-function compounds), HO-2928 (organic derivativatives of hydrazine), and HO-2932 (heterocyclic compounds).

With regard to the essential oils and retinoids sector (HO-33), three major economies demonstrate comparative advantage in HO-3301 (essential oils) – Argentina, Brazil and India – which overlap with France and the United States. India applies the highest MFN tariff in this product category (30%, with a binding of 146.9%), followed by Brazil (10.9% MFN applied tariff, with a 20% binding) and then Argentina (9.7% MFN tariff, with a 20% binding). The average MFN applied tariff in this product category for developing countries is 6.1%. Thus, there appears to be scope to increase French and US exports in the product category provided that tariffs fall in these three countries, especially India. Tariff reform would help India, and to some extent Brazil and Argentina, by making the domestic market more efficient and reducing the burden of higher prices on consumers.

In the wood pulp (HO-47) and printing (HO-49) product categories, there are relatively few 4-digit lines in which the deficit economies demonstrate comparative advantage.[38] Moreover, there are no products in which the deficit, surplus and other major economies have a comparative advantage coupled with above average MFN tariff rates. In the knitted or crocheted clothing and apparel product category (HO-61), the deficit countries, particularly Greece, Italy, Portugal and Turkey, show export specialisation in a wide variety of 4-digit product categories. However, as with the wood pulp and printing product categories, there does not appear to be scope for further reducing global imbalances by reducing protection in these product categories.

In the machinery sector (HO-84), a product category that includes many disparate products (e.g. nuclear reactors and knitting machinery), the deficit countries show a wide range of comparative advantage at the 4-digit level. Across all of the deficit countries, and with Italy in particular, 68 product categories at the 4-digit level demonstrate comparative advantage. In HO-8423 (weighing machinery), China and the United Kingdom overlap. China applies a 14.5% MFN tariff in this product category, compared to 5.7% for the average developing country. In HO-8470 (calculating machines), China overlaps with Greece and again, China applies a higher MFN tariff than the average developing country (9.3%). Sweden applies a relatively high tariff in HO-8482 (almost 8%, compared to the average high income country of 2.8%), a product category in which Italy also has a comparative advantage. Brazil[39] overlaps the most with the deficit countries, and tariffs exceed the average MFN rate for developing countries by over 10 percentage points in some cases.

This analysis suggests that if the surplus and some other major economies reduce tariffs in some select sectors, deficit countries will benefit via export opportunities in sectors in which they have a comparative advantage. Boosting deficit country exports would help reduce current account deficits, thereby improving imbalances globally. But these tariff reductions would also help the surplus economies by increasing economic efficiency via reductions in trade-related distortions. Tariffs affect households by

38. In HO-47, only three 4-digit lines appear as important export products in the deficit countries – HO-4707 (recovered paper or paperboard), HO-4704 (chemical wood pulp), and HO-4706 (pulp of fibres derived from recovered waste). For HO-49, five 4-digit lines are important – HO-4901 (printed books), HO-4902 (newspapers and journals), HO-4903 (children's picture and drawing books), HO-4904 (music, printed or manuscript) and HO-4905 (maps).

39. Overlaps at the 4-digit level include: HO-8409 (engine parts), HO-8410 (hydraulic turbines), HO-8429 (self-propelled bulldozers), HO-8432 (agricultural machinery), HO-8433 (harvesting and threshing machinery), and HO-8455 (metal-rolling mills and rolls).

increasing prices and lead to less efficient production and consumption choices. Access to a wider variety of imported inputs has also been shown to increase productivity, as technological spillovers enhance domestic innovation and adaption. The importance of trade liberalisation in driving dynamic productivity gains, while difficult to estimate, should also not be under appreciated. The surplus countries thus have a stake in further reducing tariffs to increase efficiency and productivity in their domestic economies.

Reducing services barriers may help rebalance the global economy

Some surplus economies, particularly China, Singapore, and Malaysia, have higher barriers to services imports than the deficit economies (Figure 5, Panel A). Deficit (surplus) countries also tend to be more (less) specialised in exports of services (goods) (Panel B),[40] which suggests that their exports could be hampered disproportionately by relatively higher services trade barriers. Interestingly, this line of thinking can be generalised beyond the top ten surplus and deficit countries as a strong tendency is observed for barriers to services trade to decrease as income levels rise (Panel A, Income Groups), while the share of services in value added and specialisation in exports of services tend to increase with income (Panel B, Income Groups).

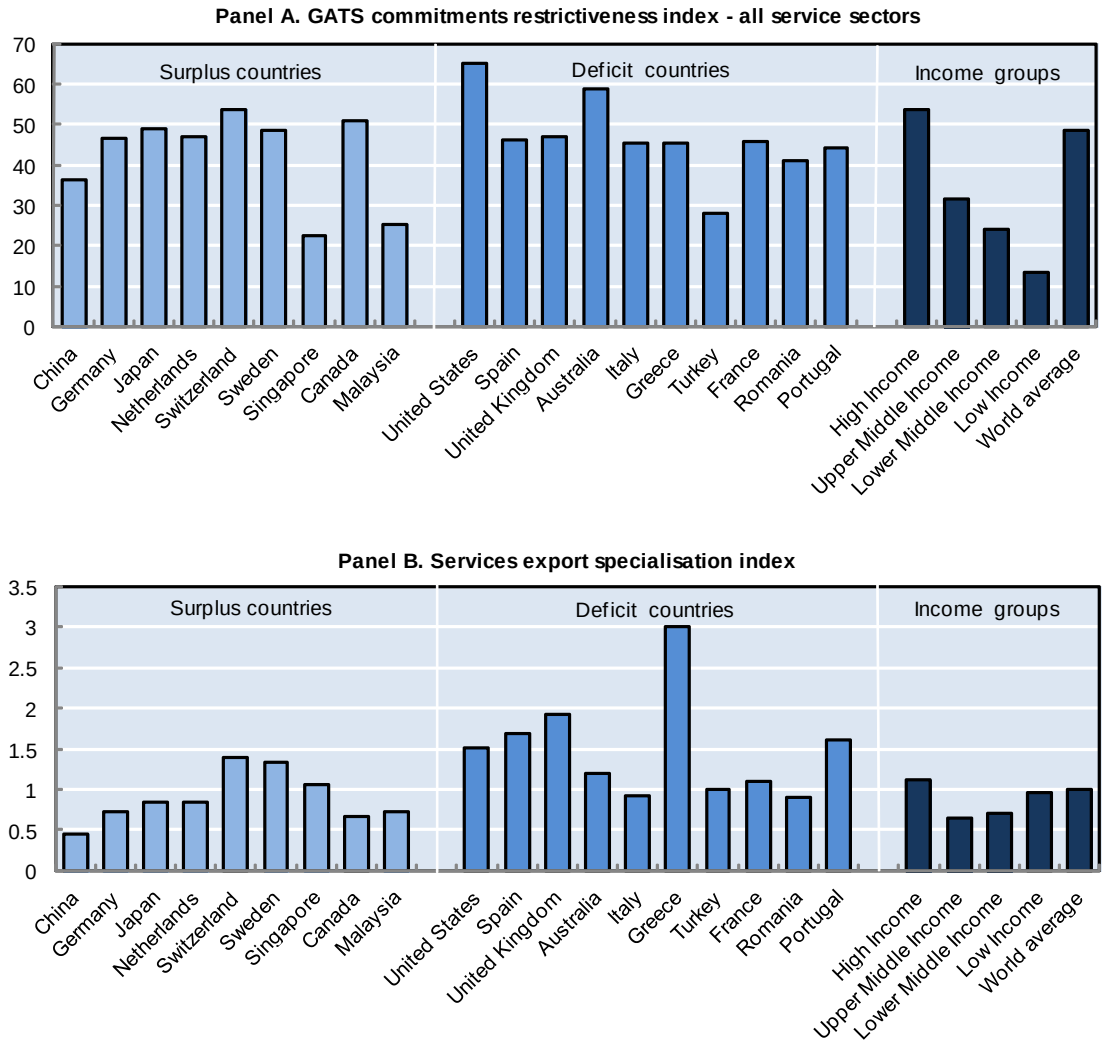
To explore whether this hypothesis might be helpful in identifying policies that would be particularly useful for global rebalancing, we take a more detailed look at import and export specialisation in countries with the largest surpluses and deficits. To do so, we again employ a RCA index to identify product categories in which a country's exports or imports are more concentrated compared to a reference country group. Indices above 1 indicate a relative[41] concentration of either exports or imports in the considered category of products in the given country.

Figure 6 indicates that all of the top three surplus countries' exports are relatively concentrated in goods (indices above 1), while all the top three deficit countries' exports are relatively concentrated in services (Figure 6, Panels A and B). Interestingly, the disparities in specialisation indices are larger for exports of services (Panel B) as compared to exports of goods (Panel A), indicating that a given world-wide marginal increase in services trade barriers could create larger payment imbalances as compared to a comparable marginal increase in goods trade barriers.

40. This is based on the Word Bank index of GATS commitments reported in the World Trade Indicators database. This is an imperfect measure of services trade restrictiveness but so far this is the only index that offers a broad sectoral coverage and comparability across countries. Other sources of information on services trade barriers such as Dihel and Shepherd (2007) and Wölfl *et al.* (2009) confirm the general finding that barriers to services trade tend to be higher in developing and emerging economies, as compared to the OECD area.

41. Relative to the world.

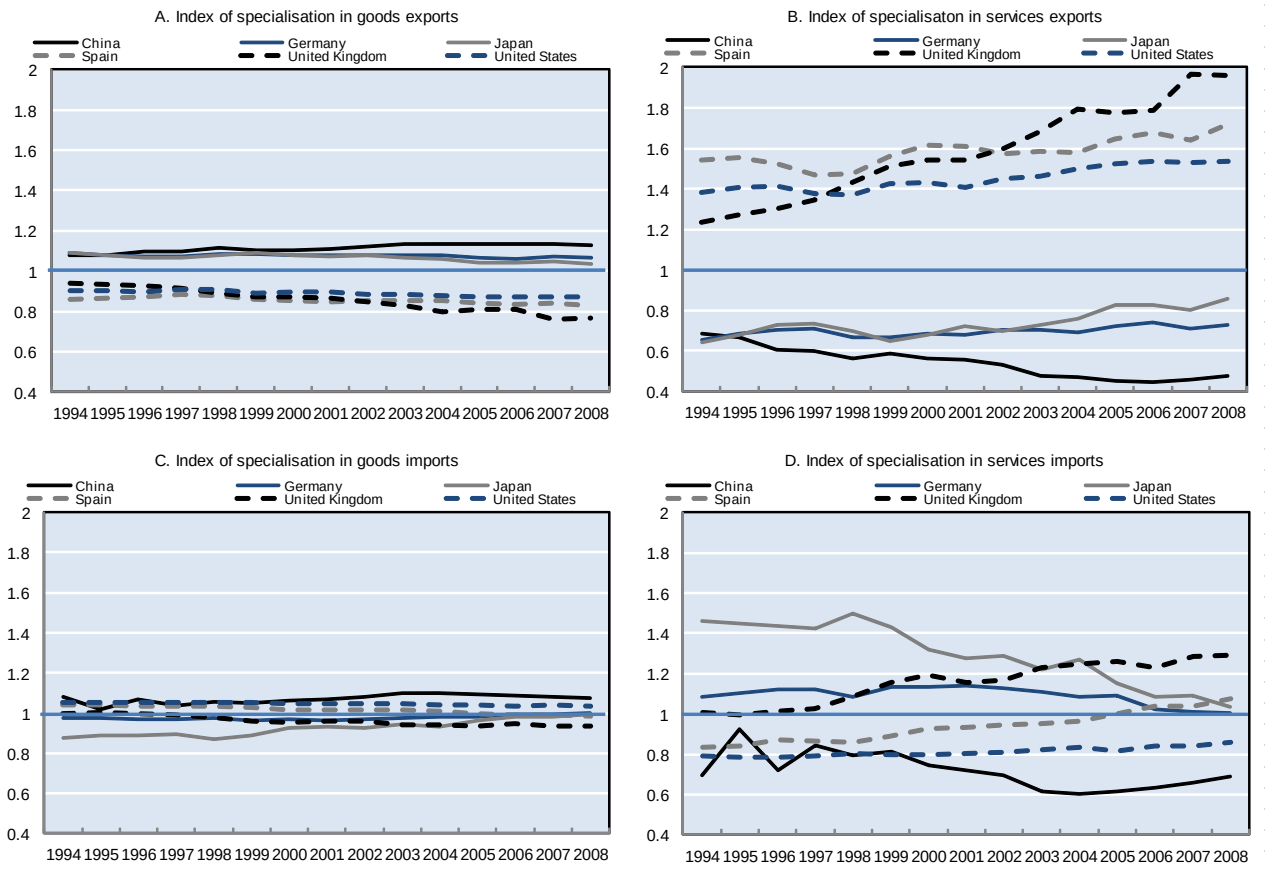
Figure 5. GATS commitments restrictiveness index – all service sectors



Notes: In Panel A, the GATS Index score for these countries is on a scale of 0-100, with 100 meaning fully liberal. Panel B represents the ratio of a share of a country in world service exports (current USD) and a share of a country in world exports of goods and services (current USD).

Source: Authors' calculations based on World Trade Indicators and World Development Indicators (World Bank).

Figure 6. Export and import specialisation in top three surplus and deficit economies



Source: Authors' calculations based on IMF Balance of Payments data.

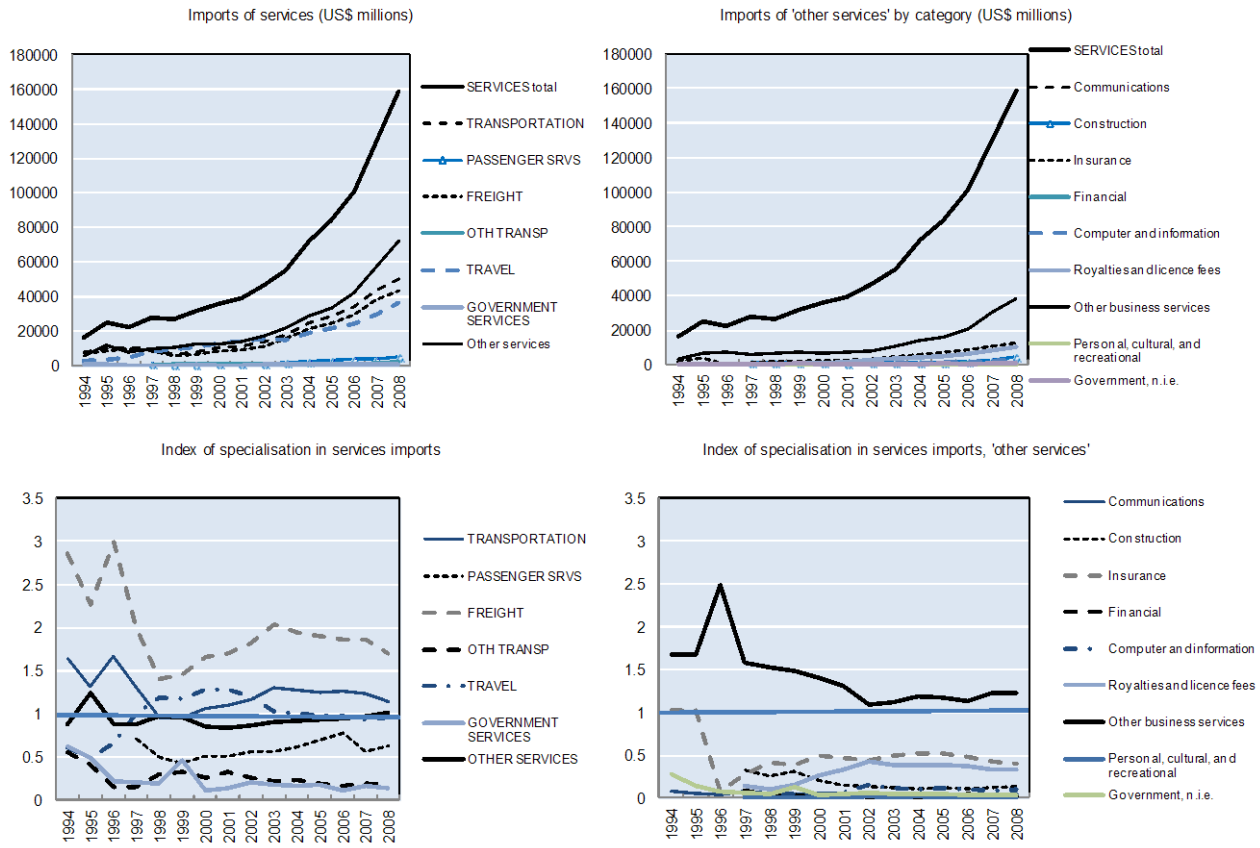
Differences in import specialisation indices are smaller, especially as far as goods are concerned (Figure 6, Panel C), indicating that surplus and deficit economies import goods in similar proportions. Differences in services import concentration ratios (Panel D) suggest some interesting trends with all three deficit countries gradually increasing their relative shares in services imports and all three surplus countries decreasing their shares.

In China in the mid-1990s, for example, the share of services in overall imports of goods and services was approximately 20 percent lower compared to the reference group, and the gap deepened further by the mid-2000s before bouncing back to approximately 30% in the late 2000s. Japan's share of services imports was approximately 50% higher in mid-1990s, but after a gradual decline Japan's imports of services moved closer to a typical share at the end of 2000s. Importantly, in the case of Japan this was accompanied by increasing specialisation in services exports (Panel B) that was driven by a gradual development of competitive domestic services industries. This was not the case in China, however, where services shares declined on both the export and the import side (Panels B and D).

Detailed balance of payments data on imports by category of services in China are further analysed in Figure 7. The figure shows that China's appetite for some services has been growing robustly, reflecting the rapid growth of the economy. This is particularly evident when considering both the value of imports and indices of import specialisation

of travel, transportation and freight services. Indeed, these categories of services imports are significant in terms of values and specialisation indices above 1, indicating that shares of these services categories in China's imports of services are higher than a typical share. Trends in transportation and freight are undoubtedly connected to developments in China's manufacturing trade, which underscores important feedback mechanisms between services and manufacturing sectors (see also Lesher and Nordås, 2006). Trends in imports of travel services, on the other hand, are likely linked to the growth of disposable incomes of Chinese citizens, a growing share of which is spent on international travel and tourism.

Figure 7. China's imports of services



Source: Authors' calculations based on IMF Balance of Payments data.

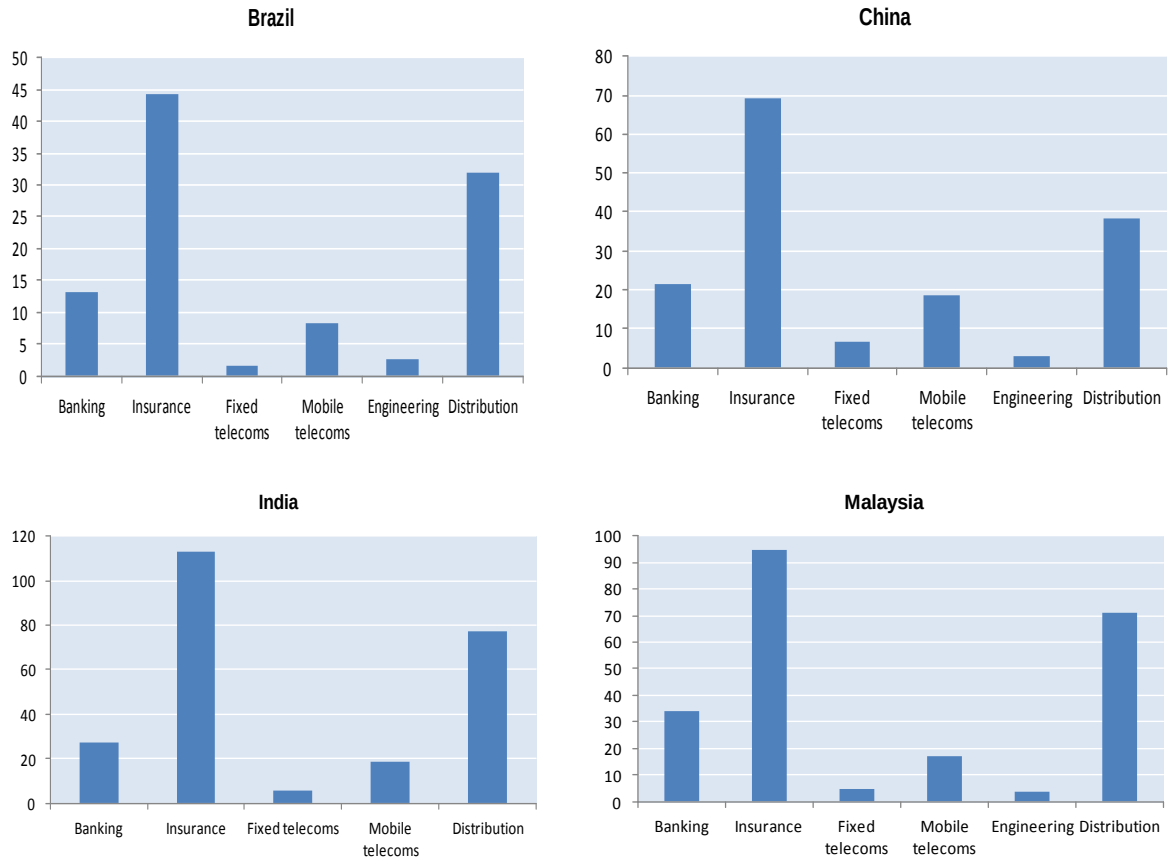
"Other services" is another import category that recorded robust growth. This composite category collects several important business services as well as construction, and its share in China's services imports is close to a typical share in the reference group. Yet, within the composite category, there are stark differences among individual business services categories that suggest important differences in regulations and barriers to services trade. Royalties and licence fees and insurance are the only two services categories that indicate more significant import activity, but even there specialisation indices suggest that China's imports are only 50% of the typical imports of the reference group. By the same metric, China imports almost no communications, financial, computer and information and personal, cultural and recreational services. It is possible that some of these services are included in the residual category 'other business services,' which collects all the services not classified elsewhere, but the import specialisation index in

this category has been declining steadily since the mid-1990s. This likely reflects a high level of public ownership and important regulatory barriers in the services sectors (e.g. Greene *et al.*, 2006).

Assessing services trade barriers is an imprecise science, but there have been some efforts to quantify barriers to services trade beyond counting GATS commitments, including by the OECD.[42] And while most of these efforts have focused on developed economies, some estimates exist for developing countries as well. Figure 8 presents estimates of services barriers in four economies, two of which are in the top ten surplus economies world-wide (China and Malaysia) and two of which are major global economies (Brazil and India).

Figure 8. Services barriers in select surplus and major economies: Estimated tax equivalents, 2004

Per cent on price



Source: Dihel and Shepherd, 2007.

42. The OECD is currently developing services restrictiveness indexes at the sector level, see *www.oecd.org/trade/stri*.

While not all services sectors are covered and only a sub-set of the surplus and other major economies are surveyed, it is clear that among the sectors studied, barriers are highest in insurance (particularly on mode 1) and distribution services. Banking also appears to be more heavily protected (especially mode 3), while fixed telecommunications and engineering are relatively open in this analysis. This pattern holds across India and Brazil (although India is not a surplus economy).

Another study (McGuire, 2008) calculates services trade restrictiveness indexes for select economies in the Asia-Pacific region. The results suggest that of the 14 economies analysed,[43] Malaysia and Indonesia had among the most restrictive banking sectors in 2001, stemming from restrictions on foreign firms entering the domestic market and foreign equity participation, in addition to prohibitions on expanding operations. Canada scored more moderately, with complex ownership regulations representing an important barrier. In the banking sector, the analysis suggests very high price effects in Malaysia and Indonesia (together with other Asian economies).[44] In Malaysia, for instance, the study indicates that the price of banking services is around 60% higher than in the absence of these restrictions.

In distribution services, more countries were surveyed (Figure 9).[45] Among the surplus and other major economies analysed, India and Malaysia emerge as the most restrictive. China, Russia, Singapore and Brazil are more modestly restrictive, while Argentina and Brazil are quite open in the distribution services sector. Across all of the economies surveyed, modes 1 and 4 are the most restrictive in this sector, although some important restrictions were also noted on mode 2.

This pattern is consistent with results from McGuire (2008), which show that Malaysia has the most restrictive score in 1999.[46] The primary barriers identified include outright bans from entering the sector, quotas on the import licenses granted to foreign firms, and restrictions on foreign equity participation in the form of limitations and performance requirements. Singapore, a more open economy in distribution services, nonetheless applies screening requirements on foreign investment and licensing requirements for management.

Work by Dihel and Shepherd (2007) points to relatively smaller barriers in the telecommunications and engineering sectors. In the area of professional services, analysis by McGuire (2008) suggests relatively less variation among the economies surveyed, implying less asymmetric liberalisation patterns. Nevertheless, China, Malaysia, and Indonesia are among the most restrictive economies analysed. In assessing the effect of these restrictions on the economic performance of service suppliers (i.e. price and cost

43. Economies studied in the banking services sector include: Australia; Canada; Chile; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; the Philippines; Singapore; Thailand; and the United States.

44. McGuire (2008) uses the services trade restrictiveness indexes in an econometric model to estimate the effect of barriers on the prices, costs, and price-cost margins faced by firms.

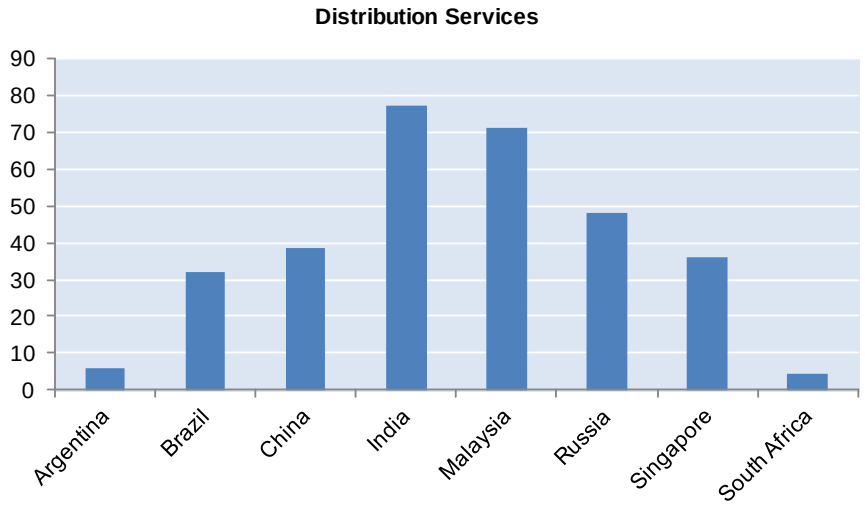
45. China; Hong Kong, China; India; Indonesia; Malaysia, the Philippines; Singapore; and Thailand.

46. Economies studied in the distribution services sector include: Australia; Canada; Chile; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; the Philippines; Singapore; Thailand; and the United States.

effects on firms), analysis suggests that most restrictions impact more on price than on cost for the Asia-Pacific economies studied.[47]

Figure 9. Services barriers in distributions services in select surplus and major economies: Estimated tax equivalents, 2004

Per cent on price



Source: Dihel and Shepherd, 2007.

The value of both of these studies is not in a particular tax equivalent or score *per se*; rather, it is in the relative ranking of countries and an identification of the policies that may be contributing the most to restrictiveness. This helps policymakers prioritise liberalisation efforts and target the most distorting services trade barriers.

But it is important to highlight that services trade liberalisation – by both surplus and deficit economies – is a useful policy objective on its own. Services are an integral component of the production of goods and services, and access to high-quality services helps firms increase efficiency and competitiveness, benefiting consumers and firms through lower prices, more variety, and better quality. Services liberalisation also spurs innovation and technology transfer, helping to increase productivity. OECD work suggests that for most countries, including many developing countries, export-related gains from services liberalisation are neither the only nor the largest basis of expected gains (Nielson and Taglioni, 2004). Most of the benefits from the liberalisation of the services sector stem primarily from enhanced competitiveness and greater efficiency of the domestic market. These benefits extend to both the deficit and the surplus economies, and underscore the importance of trade reforms in the services sector.

47. This perhaps because many of the restrictions limit entry and competition, which tends to increase prices rather than raise costs.

5. Quantifying the role of trade policy in global rebalancing

The preceding sections suggest that structural policy reforms, including trade and trade-related policies, can contribute to the rebalancing process. Specialisation patterns, the sectoral composition of current account imbalances, their geographical distribution, as well as the structure of remaining border and behind-the-border trade barriers, indicate that trade policy reforms could diminish at least some of the imbalances. However, the mechanisms by which current account balances are determined are complex, and thus the overall effect of trade policy reforms are difficult to disentangle.

To provide an indication of the relative size and direction of the likely effects of trade and certain macroeconomic policy reforms on trade and incomes, this section discusses the results of a number of CGE model simulations. As with any economic modelling exercise, the results should be treated as indicative, and should be interpreted in the context of simplifying assumptions upon which the model had been built—some of these assumptions are discussed in more detail below. CGE modelling nonetheless provides a consistent analytical framework that connects the considered policy measures with detailed structural and macroeconomic data and thus allows a better understanding of the kinds of trade reforms, and mechanisms behind them, that could help rebalance the global economy.

The modelling framework

To ensure transparency, facilitate the analysis and the replication of results, we use the standard Global Trade Analysis Project (GTAP) model combined with version 8 of the GTAP database, benchmarked to 2007.[48] Some changes to the standard closure[49] of the model and its parameters are considered to better tailor the modelling framework to the study of global imbalances. The standard GTAP model is a widely-used and well-documented multi-sector, multi-country general equilibrium model of the world economy.[50]

Variations of this model or models that have similar features have recently been used by the OECD to study trade and economic effects of responses to the economic crisis (OECD, 2010a) and the impact of trade liberalisation on jobs and growth (OECD, 2011a).[51] The standard GTAP model has also been used in a related UNCTAD study of the effects of household consumption-driven rebalancing on trade flows and employment (Mayer, 2010). The structure of this modelling framework allows for a simultaneous consideration of expenditure and trade policy scenarios under alternative assumptions of

48. This is a pre-release of the version 8 of the database which means that data changes may be further introduced. The decision to use this database is based on the fact that it is benchmarked to 2007 (version 7 is benchmarked to 2004), which is convenient from this paper's point of view, since 2007 is the year when world current account imbalances as a share of GDP culminated and the 2008-09 economic crisis was yet to unfold.

49. Which variables are chosen as endogenous (determined within the model) and which as exogenous (determined outside the model) is what is called a model closure.

50. For an overview and documentation of the GTAP modelling framework see: *www.gtap.agecon.purdue.edu/models/current.asp*.

51. OECD (2010a) uses the constant return version of the GTAP model, while OECD (2011a) uses a related model based on Francois, van Meijl and van Tongeren (2005) that features scale economies and endogenous capital stocks.

the sensitivity of investment and the labour market structure to shocks. The expenditure side of an economy is thus connected to the supply side, while accounting for important trade linkages among countries and regions. It also allows for analysis of the structural implications of adjustment scenarios.

To account for significant increases in unemployment in several OECD countries and relatively robust growth in some of the emerging economies post-crisis, some of the simulations adopt an assumption of fixed wages and variable employment levels. The fixed wage assumption is a more realistic one when modelling the responses of an economy with unemployment because the significant slack in the labour market means that a positive demand shock does not instantaneously increase wages, but rather expands employment. To account for this, we follow the approach in OECD (2011a) in some simulations and adopt the unemployment assumption for individual countries in North America, the European Union and South Africa, while all other regions are assumed to operate under full employment.

The Technical Annex (Annex II) presents the main features of the model and a more detailed description of the macroeconomic closure and the determination of the current account in the GTAP model. But it is important to highlight the national savings-investment identity as one of the key relationships underpinning the model, whereby both the national savings and the trade balance sides of the identity are jointly determined within the model (i.e. endogenous). This means that any shock that affects the savings-investment side of the identity has its mirror image in the trade balance and vice versa. The equilibrating mechanisms that underpin this identity are changes in a wide range of endogenous variables, most notably changes in the prices of primary factors of production (e.g. capital and labour) and a whole range of changes in relative prices, such as the price of imports relative to the prices of domestic products or changes in relative prices of imported intermediate and final products originating from different countries. These price adjustments depend crucially on the actual structure of the economies in the baseline as well as various elasticities and parameters in the model.

The flexibility parameter in the investment module influences the adjustment of the current account more than other parameters (Annex II). The parameter directly determines the sensitivity of regional investment to changes in expected rates of return. Evidence as to whether the value of this parameter should be high or low is scant (Hertel, 1997), and thus experiments with different values of this parameter are considered.[52]

While investment is determined endogenously in the model, it remains a static model as investment does not alter the capital stock. Moreover, the model, as most other similar CGE models, does not account for the extensive margin in production or trade, where new producers or traders take up previously non-existing activities. These features make the modelling framework rather dependent on the structure of the world economy in the baseline and not particularly well-suited to studying very significant structural changes. For example, the small initial share of services trade in world trade determines the relatively small size of the effect of reducing services trade barriers, which are dwarfed by the effects of merchandise trade policy reforms. Nevertheless, the advantage of a static model is that it minimises uncertainties associated with modelling the dynamics of capital accumulation or entry of new firms. Overall, however, given the assumption of fixed

52. The default value of the flexibility parameter in the GTAP database is 10. The current analysis is based on two sets of simulations: one that assumes a value of 5 for the flexibility parameter and another assuming a value of 15.

capital base, the modelling results should be viewed as medium- rather than long-term, and perhaps as an underestimation of the effects of trade policies on the current account and other variables.

Data, country and sector coverage

The GTAP database provides consistent and up-to-date data on production, consumption and trade by country and sector. It also incorporates border protection data from the ITC/CEPII Macmaps database, which includes bilateral ad valorem tariffs as well as ad valorem equivalents of specific tariffs, mixed tariffs and quotas.[53] The database does not account explicitly for non-tariff measures (NTMs), but the modelling framework affords the possibility of modelling the effects of NTMs. In this respect, the paper follows the approach used in OECD (2011a) to consider some stylised scenarios in which a reduction in NTMs results in a real increase in the cost of delivering to market in some services sectors, a cost that does not generate revenue or rents but instead represents a global deadweight loss in income and welfare.[54]

For the purposes of this exercise, the database has been aggregated to twenty seven regions (Table 3), which allows for the individual treatment of 11 OECD members, 18 members of the G20,[55] the rest of the EU, EFTA, and an "ASEAN plus" grouping consisting of the remaining ASEAN countries[56] as well as groupings of developing countries in Asia, Latin America, Sub-Saharan Africa, North Africa and the Middle East, and the rest of the world. Sector aggregation follows OECD (2011a) so as to distinguish between primary agriculture, processed food products, oil and petroleum products, the main manufacturing sectors (including chemicals, metals and metals products, motor vehicles, and machinery), electricity, gas and water, as well as a number of services sectors (including construction, trade, road, water and air transport, communications, financial services, insurance and business services).

53. An overview of the database can be consulted at: *www.cepii.fr/anglaisgraph/bdd/macmap.htm*.

54.. See Annex 2.A. in OECD (2011a) for a detailed description of this approach.

55. Data constraints do not allow the inclusion of Saudi Arabia. Likewise, the European Union cannot be included as a separate region when its individual members are included, but results for this region can be obtained by jointly considering individual members as well as the Rest of the EU region.

56. The "ASEAN plus" grouping includes Hong Kong, China; Chinese Taipei; Malaysia; the Philippines; Singapore; and the Rest of Southeast Asia.

Table 3. Country and sector aggregation

Country aggregation	Sector aggregation
Australia	Agriculture, forestry and fisheries including: paddy rice, wheat, cereal grains nec, vegetables, fruit, nuts, oil seeds, sugar cane, sugar beet, plant-based fibres, crops nec, bovine cattle, sheep and goats, horses, animal products nec, raw milk, wool, silk-worm cocoons, forestry, fishing
New Zealand and rest of Oceania	Processed foods including: bovine cattle, sheep and goat meat products, meat products, vegetable oils and fats, dairy products, processed rice, sugar, food products nec, beverages and tobacco products
Rest of world	Oil, coal and petrochemicals including: coal, oil, gas, minerals nec, petroleum and coal products
China	Other manufactures including: textiles, wearing apparel, leather products, wood products, paper products, publishing, mineral products nec and manufactures nec
Asean plus	Chemicals including: chemical, rubber, plastic products
Japan	Metals and metal products including: ferrous metals, metals nec, metal products
Korea	Motor vehicles including: motor vehicles and parts
Developing Asia	Machinery including: transport equipment nec, electronic equipment, machinery and equipment nec
Indonesia	Electricity
India	Gas and water including: gas manufacture, distribution and water
Canada	Construction
United States of America	Retail trade
Mexico	Transport and logistics nec
Developing Latin America	Sea transport
Argentina	Air transport
Brazil	Commnunication
Rest of Europe	Financial services
France	Insurance
Germany	Business services
Italy	Other services including: recreational and other services, public administration and defence, education, health, ownership of dwellings
United Kingdom	
Efta	
Russian Federation	
North Africa and Middle East	
Turkey	
Developing Sub-Saharan Africa	
South Africa	

Rebalancing scenarios and results

Consumption scenarios

To assess the relative role of trade policy reforms in rebalancing, it is useful to compare their effects with the effects of structural policy reforms that would result in direct changes in consumption-saving behaviour. It is also interesting to investigate the effects of changes in consumption behaviour on the structure of trade and production. Altogether the modelling exercise considers 28 scenarios, divided into two broad categories: consumption scenarios and trade policy scenarios (Table A2.1).We investigate how these different scenarios affect trade balances not only for economies with large current account deficits and surpluses, but also for other economies connected through "triangular trade."

The first set of simulations (Scenarios 1-3) investigates the trade effects of changes in consumption behaviour. Here, we take a highly stylised approach by considering a 10% decline in US consumption and a 10% increase in China's consumption, where the changes in private consumption are associated one-to-one with changes in savings. This roughly corresponds to decreasing the US share of private consumption from 71% to approximately 67% of GDP, and increasing consumption from 34 to 37% in China. These private consumption scenarios are considered separately for China and the United States as well as jointly (Scenarios 1-3 in Table A2.1).

The magnitude of these consumption adjustments is comparable to what has been suggested in the literature as a viable rebalancing scenario, though our approach does not take into account the different extent to which China and the United States may deviate from sustainable consumption behaviour. Mayer (2010), for example, argues that changes that would bring private consumption GDP shares to historic levels are a 5 percentage point decline in US consumption as a share of GDP and a 7 percentage point increase in China's consumption as a share of GDP. The advantage of our symmetric scenario is that we can compare the extent to which trade balances can be reduced as a result of a similar proportional change in private consumption in the two economies.

The shifts in consumption behaviour are also stylised in the sense that they do not mimic any concrete policy reforms that could result in changing consumption behaviour. Changes in consumption or saving behaviour are most plausibly achieved through structural policies, i.e. policies that influence long-term consumption behaviour. The kind of reforms that have been identified as having the potential to realign consumption-savings behaviour to sustainable levels include reforms of: product market regulations, labour market policy, social welfare systems, tax policy and financial market regulation (OECD, 2011b and Kerdrain *et al.*, 2010). Modelling of these specific structural policies, however, goes beyond the scope of this paper and here we merely consider generic exogenous shocks to consumption rates.

Notwithstanding the basic character of the modelled consumption scenarios, the results underscore the role of macroeconomic policies in the rebalancing process. Increasing consumption in China or reducing it in the United States does indeed diminish the imbalances. Relative to the 2007 baseline, a 10% reduction in US consumption reduces the US trade deficit by 3.5 percentage points of GDP (Table A3.1). Globally, such a scenario is associated with a reduction from 4.3%to 3.4% in the share of the sum of absolute values of current accounts in world GDP. Notably, diminishing US consumption affects economies world-wide; all countries experience either a decline in the trade surplus or an increase in the trade deficit. In relative terms these impacts are

smaller than in the United States, but they can reach 1.5 percentage points of GDP. This is also the case in China where the trade surplus is reduced by 1.3 percentage points of GDP. A 10% increase in China's private consumption would reduce China's surplus by 2.6 percentage points of GDP, but it would make almost no difference in the trade balances of its trading partners (Table A3.2). This is also the case for the United States, where the deficit would fall by a mere 0.1 percentage points of GDP.

These results highlight an important point that has been made in the rebalancing debate. Namely, while changes in consumption-saving behaviour are at the heart of the global rebalancing process, and they can significantly affect the external balances of countries introducing such reforms, they may have limited power to correct imbalances in the trading partners. For example, a policy that boosts consumption in China, and thus reduces its trade surplus, would not be as effective in reducing the US deficit. This is because international trade plays a less significant role as compared to the domestic market in China, and because substitution is possible among the different trading partners. For example, in the event of increasing prices of Chinese imports, US consumers could substitute to imports from third countries, at least to a certain extent. The relatively larger effect of the US consumption change on China's trade balance signifies the importance of the United States in the world economy as well as its relatively high importance for China.

Thus, any global rebalancing must involve concerted and co-ordinated efforts by the deficit and surplus countries. This is illustrated in the combined scenario (Table A3.3) in which China increases its private consumption by 10% and the United States reduces consumption by the same percentage, which leads to a reduction in the trade surplus in China by 3.9 percentage points of GDP and to a fall in the US trade deficit by 3.6 percentage points of GDP relative to the baseline. This would reduce the share of the sum of absolute values of current accounts in world GDP from 4.3% to 3.2%, i.e. by 1/4th. It can be inferred that such a rebalancing scenario would be associated with a real appreciation[57] of the Chinese yuan by 2.7% and a depreciation of the US real exchange rate by 4.8%. This would imply a realignment of the bilateral real exchange rate of the yuan with respect to the dollar of 7.5%. In value terms (and relative to the 2007 baseline), the combined scenario would result in a decline in China's annual trade surplus of approximately 125 USD billion and a 500 USD billion decrease in the US deficit.

The combined scenario implies a 9.7% reduction in China's export volume and a 3.7% drop in import volume, while in the US exports would increase by 30.3% and imports would decrease by 10% relative to the 2007 baseline. Yet, there are significant differences across sectors (Table A3.34). In China, the biggest reductions in export volumes are observed in a number of agricultural and manufacturing sectors such as agriculture, forestry and fishing (-12%), machinery (-10.6%) and other manufactures (-10.5%), while the largest increases in imports are in oil, coal and petrochemicals (8.4%) as well as in a number of services sectors [e.g. other services (9.1%), retail trade (7.8%) and financial services (6.9%)].

In the United States, the largest increases in export volumes are found in machinery (45%), other manufactures (36%), as well as in a number of services sectors [e.g. business services (23%), and financial and insurance services (21%)]. The largest declines in imports are recorded in other manufactures (15%), oil, coal and

57. Defined as the change in an index of primary factors of production (land, capital, skilled and unskilled labour).

petrochemicals (15%) and in some other manufacturing and services sectors. These results suggest that rebalancing, even if it does not explicitly include major trade policy reforms, impacts the structure of global trade. They also confirm that rebalancing implies important sectoral shifts, such as significant increases in the export of manufactures and services in the United States and significant increases in imports of certain manufactures and services in China.

Trade policy scenarios

The second set of scenarios considers if and how trade policy reform could facilitate the global rebalancing process. This set of scenarios, all of which are summarised in Table A2.1, is chosen so as to consider the effects of:

- Global liberalisation initiatives involving all sectors (Scenario 4);
- More selective liberalisation initiatives that include only certain broad sectors (agriculture, manufacturing or services) (Scenarios 5-7);
- Sectoral initiatives involving some more specific product groups with relatively high or dispersed trade barriers (e.g. chemicals, motor vehicles, and machinery) (Scenarios 8-10); and
- Initiatives involving selected key services sectors (retail trade, financial services and insurance) (Scenarios 11-13).

All of the trade policy scenarios are initially run as multilateral initiatives involving all countries and then, for comparison, as unilateral liberalisation scenarios by the two main surplus regions, notably China and a grouping consisting of a number of ASEAN countries (Scenarios 14-23). The latter set of scenarios helps inform whether further liberalisation of import regimes in some major surplus countries could help with rebalancing. Finally, Scenarios 23-28 repeat some of the above scenarios under the assumption of unemployment in selected regions.

Scenario 4 considers multilateral liberalisation of remaining tariffs whereby all regions are assumed to completely remove their remaining tariffs in agriculture and manufacturing (Table A3.4). This is not a "realistic" scenario, especially in the context of the current impasse in the Doha Development Agenda (DDA) negotiations, but it is a useful benchmark because it captures the overall potential gains from moving to a tariff-free world and thus eliminates the problem of guessing what a realistic outcome of the DDA negotiations entails. The scenario yields global welfare gains of 104 USD billion, an estimate that is of the same order of magnitude as estimates generated within similar modelling frameworks (see Table A2.2 for a summary of selected recent studies). This is equivalent to 0.2% of world GDP in 2007 but the magnitude of these gains should be interpreted as indicative at best since the model captures merely the so-called static gains from trade which are generated based on the assumption of an unchanged resource base (e.g. labour, capital), and unchanged productivity level or productivity growth rates. All regions are predicted to experience real GDP gains of between 0.1 to 1.2 of GDP though a number of regions suffer from negative terms of trade effects which render negative welfare valuations of these effects.[58]

58. The welfare measure reported refers to equivalent variation which is the amount of money that would make the region as well off (in terms of utility) as a specified change in the economy.

In addition to the overall global welfare gains, multilateral tariff liberalisation does have some rebalancing properties in that, for example, the trade surplus of China falls (-0.3 percentage points of GDP) and the US deficit improves (0.5 percentage points of GDP) (Table A3.4). These changes are smaller than those associated with the consumption scenarios discussed above, but they are not negligible. Indeed, the reductions in external balances of China and the United States correspond to, respectively, 1/13th and 1/7th of the reductions associated with the combined consumption scenario (Scenario 3) relative to the baseline. Globally, the share of the sum of absolute values of current accounts in world GDP declines only marginally, from 4.3% to 4.2%. This suggests that concluding an ambitious agreement on multilateral liberalisation would not only bring about global gains, but that it could also reduce somewhat the size of trade imbalances.

One of the reasons why the rebalancing effects of multilateral liberalisation of remaining tariffs are relatively modest in global terms is that several developing regions record significant increases in their imports relative to exports, and thus experience a worsening of their current accounts. This is the case in Developing Asia (change in trade balance of -6.1 percentage points of GDP), Developing Sub-Saharan Africa (-4.3 percentage points of GDP) and North Africa and Middle East (-2.2 percentage points of GDP). However, these growing current account deficits are associated with the fact that these regions are characterised by some of the highest import tariffs in the baseline; their imports react more strongly to liberalisation. Also, it is crucial to note that the worsening of current accounts in these regions coincides with relatively large increases in real GDP and welfare (e.g. developing Asia experiences a 1.2% increase in real GDP, the largest change across all the regions). This result underscores that imbalances do sometimes reflect economically beneficial developments. In the above-mentioned cases countries with high import tariffs experience a worsening of the current account post-liberalisation, but this is associated with cheaper intermediate inputs and lower prices of consumption goods and thus with gains in welfare and income.

A comparison of the results of liberalisation initiatives that include the broad sectors of agriculture and manufacturing (Scenarios 6 and 7, Tables A3.6 and A3.7) suggest that remaining border protection in manufacturing contributes more to imbalances. For example, removal of manufacturing tariffs would reduce China's surplus by 0.3 percentage points of GDP and reduce the US trade deficit by 0.5 percentage points of GDP, while the removal of agricultural tariffs would not impact these countries' balances. Scenarios 8-10 (Tables A3.8–A3.10) indicate further that this reduction in China is mainly driven by the liberalisation of tariffs in the chemical sector, while the US surplus is reduced mostly because of a reduction in the remaining import tariffs on motor vehicles and machinery in its main trading partners.

Scenario 5, which involves a 30% decrease in the cost of producing and delivering services to the foreign market in all regions, is an attempt to shed more light on the role of services liberalisation in the rebalancing debate. This part of the modelling exercise is less robust given the lack of reliable data on services trade barriers and the stylised nature of the scenario whereby all countries experience the same reduction in costs, irrespective of the size of actual barriers to services trade. The 30% decrease in the cost of producing and delivering services generates much higher welfare gains than the reduction of tariffs. Global welfare increases by 538 USD billion and real GDP increases in some regions by more than 2% (e.g. ASEAN). Such large gains are consistent with the magnitude and nature of the cost reduction, but also reflect the large shares of services in GDP and their strong links with other sectors of the economy (e.g. Dihel, 2005). Not surprisingly, some

of the largest welfare gains from services cost reduction accrue to OECD members such as the United States or the European Union.

Somewhat unexpectedly, and in contrast to the large income and welfare effects, the services scenario implies a relatively modest role for services liberalisation in the rebalancing process (Table A3.5).[59] The US trade deficit is reduced but only by 0.1 percentage points of GDP while China's surplus actually increases by some 0.5 percentage points of GDP. The result for ASEAN and EFTA are closest to our expectations and these important surplus regions reduce their positive trade balance by, respectively, 0.6 and 0.4 percentage points of GDP relative to the baseline, which gives a better outcome in terms of rebalancing as compared to the tariff liberalisation scenario. In addition, the services scenario reduces trade deficits in some deficit countries, including, for example, India, Turkey, the Middle East and North Africa.

Overall, a pattern emerges in which imbalances are modestly reduced as a result of services trade liberalisation. The small result can be attributed to the generic character of the assumed liberalisation scenario where the actual structure of barriers across countries and services sectors has not been taken into account. Nevertheless, the most straight-forward explanation of this result is that, despite the high shares of services in value added of most economies, services trade via mode 1 and 2 account for less than 14% of world trade in goods and services. Moreover, liberalisation of modes 1 and 2 of services delivery can boost productivity in other export sectors, diminishing the impact on current account imbalances. Or, the static nature of the modelling framework could be underestimating the impact of services liberalisation on the domestic economy.

More generally, however, the most important mode of services delivery – foreign direct investment (FDI) or mode 3 – is not accounted for in either the CGE framework or in current account balances. Thus, it is important to bear in mind that our results do not imply that the role of FDI regime liberalisation is equally modest. In fact, the role of FDI in rebalancing is more difficult to assess because FDI inflows are reflected in the financial account of the balance of payments as credits (which can be interpreted as one source of financing of current account deficits) and at the same time affect the productive and trading capacity in the recipient country which can have an impact on the current account position in the long-term.

In the 2007 baseline, China and ASEAN are the two regions with the largest trade surpluses (12.5 and 13.4% of GDP, respectively). Remaining import tariffs in these regions are not exorbitant, but in some manufacturing sectors they are significantly higher than in the OECD countries. In China, for example, *ad valorem* tariffs rates on motor vehicles exceed 20%. Other sectors with similarly high tariffs include oil, coal and petrochemicals, chemicals and other manufacturing sectors. A similar pattern emerges in the ASEAN countries, with the difference that the chemicals and other manufacturing sectors are less protected as compared to China. It is thus interesting to consider the extent to which a unilateral liberalisation of the remaining moderate-to-high protection by the largest surplus countries may contribute to rebalancing.

59. Earlier in the paper we argued that services liberalisation emerges as a key component of a comprehensive rebalancing policy package. This is because many of the deficit countries specialise in services and are at a disadvantage when trying to rebalance their economies because they face higher barriers to exporting in the sectors in which they have a comparative advantage. It would also seem beneficial to liberalise services from the perspective of the surplus economies, particularly those in developing Asia, where barriers are highest.

This issue is taken up in Scenarios 14 through 23 (Tables A3.14–A3.23), where various generic unilateral liberalisation initiatives by China and ASEAN countries are considered. These scenarios suggest that such reforms could deliver an increase in these regions' GDP of approximately 0.2% while at the same time reduce these regions' surpluses of up to 1 percentage point of GDP, relative to the baseline. Removal of all remaining import tariffs, for example, results in a reduction of China's surplus by 0.8 percentage points of GDP and in a reduction of ASEAN's surplus by 1.1 percentage points of GDP (Table A3.14). For both of these regions, the reductions are more pronounced when compared to the multilateral tariff reduction scenario (Table A3.4). The scenario combining unilateral tariff reductions with a decrease in the cost of delivering services to these markets further magnifies the scale of rebalancing (Table A3.15), especially in the two regions undertaking the reforms. Thus, overall, China and ASEAN, the two regions with the largest baseline trade surpluses, could alone make a significant contribution to rebalancing and, as illustrated by the positive role openness played in these regions' recent economic growth (OECD, 2009), this would also benefit firms and consumers in these economies.

The assumption of unemployment in individual countries in North America, the European Union and South Africa does not change the main conclusions drawn above, although it shifts the rebalancing effects toward these regions (Tables A3.24–A3.28). Thus, for example, the multilateral liberalisation scenario using the unemployment closure results in a smaller reduction of China's surplus (by 0.1 percentage point of GDP), and a larger reduction of the US deficit (by 0.7 percentage point of GDP) relative to the baseline. The latter result is consistent with what would be expected of an economy with significant slack in the labour market. For example, the export expansion effect is magnified as a positive export demand shock, resulting in increased employment rather than higher wages. This suggests that the potential for trade reforms to contribute to rebalancing is higher in the current context of higher unemployment in some OECD countries than it would be if these economies were operating at full employment.

Experiments involving different values of the investment flexibility parameter suggest that the rebalancing properties of both the consumption and trade policy scenarios are indeed higher when investment is allocated more freely in reaction to policy changes (Tables A3.29–A3.33). When investment flows are restricted, the savings-investment side of the national savings-investment identity is determined by changes in savings, which themselves are closely related to income. This not only generates changes in the magnitudes of trade balance adjustments, but also in some cases changes the qualitative results.

This is, for example, the case in the multilateral liberalisation scenario with restricted investment flows (Table A3.30), which generates a marginal increase in China's trade surplus. The latter effect is related to the fact that investment does not change much but savings increase with income. In contrast, in the ASEAN region such a scenario still results in a small rebalancing or trade surplus, even with restricted investment flows. As already foreshadowed, evidence as to whether the value of the investment flexibility parameter should be high or low is scant and it is thus impossible to determine which set of results is more reliable. However, these differences underscore the important point that the rebalancing properties of any macroeconomic or trade policy scenario will depend crucially on the links between such policy changes and trade as well as investment.

6. Conclusions and policy implications

The large global imbalances that emerged in the run-up to the economic crisis of 2008-09, and which seem poised to re-emerge as the global economy recovers, have surfaced as an important element of the policy debate on ensuring sustainable future growth. Policymakers from the G-20 and others are now considering how to tackle global imbalances so that all economies benefit. This paper goes beyond macroeconomic management considerations and exchange rate realignments to assess how one type of structural policy reform – namely trade and trade-related policy reforms – may facilitate global rebalancing. Moreover, the paper analyses how various rebalancing scenarios, even if they do not explicitly include major trade policy reforms, may impact global trade. Thus, this study complements recent OECD work that analyses the impact of non-trade structural policy reforms on current account imbalances (OECD, 2011b).

Policies to encourage more balanced sources of demand are needed

Rebalancing requires a more even distribution of sources of demand in deficit and surplus economies, with surplus countries relying more on internal demand and deficit economies focusing more on external sources of demand. To a certain extent, such rebalancing has already been taking place. Slower growth in the OECD area as compared to many emerging economies with large current account surpluses means that these economies must rely less on exports to OECD countries and shift demand toward domestic and intra-regional sources through increases in domestic investment and both private and government consumption, particularly if these changes do not threaten macroeconomic stability and boost potential output in the longer term. By the same token, the largest deficit countries, many of which are OECD members, are profiting from faster growth in the emerging economies and thus shifting more toward a reliance on external demand.

Structural policies aimed at increasing long-term growth can play an important role in encouraging these shifts. Product market and social welfare reforms, as well as other structural policies, can spur growth and at the same time facilitate the rebalancing process. The modelling results provided in this study – while subject to the many caveats typical of CGE modelling – illustrate that changes in consumption and savings behaviour are indeed central to the global rebalancing process, and they can significantly affect the external balances of countries introducing such reforms. However, the modelling results also show that complementing structural and macro policy reform with trade liberalisation may provide a more comprehensive policy package aimed at addressing global imbalances.

Regardless of trade policy reform, the rebalancing process will affect trade, particularly in certain sectors

The study finds evidence to support the hypothesis that rebalancing, even if it does not explicitly include major trade policy reforms, impacts the structure of global trade. Important sectoral shifts are found, such as sizeable increases in exports of manufactures (e.g. machinery) and services (e.g. business, financial and insurance services) in the United States, as global imbalances unwind. Evidence of considerable increases in imports of certain goods (e.g. oil, coal and petrochemicals) and services (e.g. retail and financial services) in China also emerge from the modelling exercise.

Trade policy reforms aimed at reducing asymmetric protection would be useful

The analysis also suggests that asymmetric patterns of trade protection may be hindering the rebalancing process, and that further liberalisation can help reduce imbalances as well as increase economic efficiency in the same way that other types of structural policies can facilitate this process. Modelling results of further tariff liberalisation involving China and a group of Southeast Asian countries – economies with some of the largest surpluses and relatively high trade barriers – suggest that such reforms could reduce these regions' surpluses by up to 1 percentage point of GDP. The study also finds evidence that the potential for trade reforms to contribute to the rebalancing process is greater in the current context of relatively high unemployment in much of the OECD area, underscoring the need for swift action in further liberalising trade.

Trimming tariffs would help global rebalancing and increase efficiency

In addition to the overall global welfare gains, the modelling results indicate that multilateral tariff liberalisation exhibits some rebalancing properties in that, for example, the trade surplus of China falls (-0.3 percentage points of GDP) and the US deficit improves (0.5 percentage points of GDP) relative to the baseline. These changes are smaller than those associated with the consumption scenarios undertaken, but they are nonetheless not inconsequential.

This suggests that remaining tariff barriers in some of the surplus and other major economies may be impeding the export potential of the deficit countries. In the chemicals sector, for example, there appears to be scope for trade liberalisation to play a facilitating role in bringing about better balance in the global economy. Removing smaller pockets of protection in other sectors, such as machinery or motor vehicles, may also facilitate the rebalancing process. Tariff reductions would likewise benefit the surplus economies by reducing trade-related distortions, which hurt households by driving up prices and lead to inefficient production and consumption choices.

Reducing services barriers may also in principle help rebalance the global economy and boost productivity…

Many of the deficit countries are potentially at a disadvantage when trying to rebalance their economies because they face higher barriers to exporting services, where they reveal a comparative advantage. For example, this study finds that among the top surplus and deficit countries, the disparities in specialisation indices are larger for exports of services relative to exports of goods, indicating that a given world-wide marginal increase in services trade barriers could create larger payment imbalances as compared to a comparable marginal increase in goods trade barriers. It would also be economically beneficial to liberalise services from the perspective of some of the largest surplus economies, particularly those in developing Asia, where barriers are highest.

… though the modelling results in this area suggest a small effect given the existing low share of services in global trade

Thus, there are reasons to think that services liberalisation could play a useful role in the rebalancing process, but in the modelling exercise performed in this paper imbalances are only modestly reduced as a result of services trade liberalisation. One explanation of this result is that, despite the high shares of services in value added of most economies, services trade via modes 1 and 2 account for less than 14% of world trade in goods and services. Here, the static nature of the modelling framework makes results dependent on initial structural characteristics and not particularly well-suited to studying very

significant structural changes, such as services sector expansion. Moreover, services liberalisation boosts productivity in export sectors, diminishing the impact on current account imbalances. The modest rebalancing result can also be attributed to the generic character of the assumed liberalisation scenario in which the actual structure of barriers across countries and services sectors are not fully taken into account because of lack of reliable data on services trade barriers. Finally, FDI – or mode 3 – is not accounted for in the modelling. In principle, opening up to FDI could play an important role in surplus economies by increasing domestic productivity in less traded sectors and thus improving prospects for balanced growth.

In China, the opening up of trade and FDI in goods coexists with a high level of public ownership and important regulatory barriers in the services sectors (Greene *et al.*, 2006; Wang, 2011).[60] Indeed, this is independently acknowledged in internal discussions on China's 11th Five-Year Plan (2006-2010), which for the first time emphasises development of services as a means of improving the overall structure of industry, job opportunities and comprehensive competitiveness.[61] More recently, Godement (2010) argues that greater access to China's capital market and services sector and public procurement ("second opening") would be a better solution to the United States-China currency dispute than currency revaluation.

A multilateral and co-ordinated approach to reducing imbalances is essential

The diverse range of countries that exhibit large current account imbalances suggests that concluding a meaningful Doha Development Agenda (DDA) agreement in the World Trade Organisation (WTO), a multilateral setting in which maximum benefits can be achieved for all, would be more effective in containing and reducing imbalances as compared to regional initiatives. Moreover, the DDA negotiations should emphasise balanced sectoral outcomes, so that asymmetries in liberalisation patterns across broad sectors such as agriculture, manufacturing and services minimise inter-sectoral distortions. All economies have a stake in reducing trade-related distortions, and an ambitious and balanced agreement in the context of the DDA would be an important step forward in taking full advantage of the potential benefits of trade liberalisation, for global imbalances and for growth.

Ultimately, a co-ordinated response involving macroeconomic, exchange rate and structural reforms, including trade policy reforms, are needed to address the imbalances in the global economy. Structural reforms focused on improving productivity in neglected sectors can lead to more balanced economic growth. In particular, since some imbalances stem from the asymmetric pattern of remaining protectionism in goods and services sectors, a balanced approach to trade policy reform could facilitate the global adjustment process. Overall, the findings in this paper suggest that trade policy can play a useful role in the rebalancing process.

60. High entry barriers, excessive state involvement, opaque regulatory process and overly burdensome licensing and operating requirements.

61. See, for example, *www.china.org.cn/english/2006/Mar/160397.htm*.

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Annex I

Tables and Figures

Table A.1. Current account deficits in top 3 surplus and deficit countries

2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Current account balance (% of GDP)									
China	1.7	1.3	2.4	2.8	3.6	7.1	9.3	10.6	9.6	6.0
Germany	-1.7	0.0	2.0	1.9	4.7	5.1	6.5	7.6	6.8	5.0
Japan	2.6	2.1	2.9	3.2	3.7	3.6	3.9	4.8	3.2	2.8
United States	-4.2	-3.9	-4.3	-4.7	-5.3	-5.9	-6.0	-5.1	-4.7	-2.7
United Kingdom	-2.6	-2.1	-1.7	-1.6	-2.1	-2.6	-3.4	-2.5	-1.5	-1.2
Spain	-4.0	-4.0	-3.2	-3.5	-5.3	-7.4	-9.0	-10.0	-9.8	-5.5
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Current account balance (BoP, current US$)									
China	20.5	17.4	35.4	45.9	68.7	160.8	253.3	371.8	436.1	297.1
Germany	-32.3	0.4	41.1	46.9	128.0	142.8	189.1	254.6	246.1	165.5
Japan	119.7	87.8	112.4	136.2	172.1	165.8	170.5	210.5	156.6	142.2
United States	-416.4	-397.2	-458.1	-520.7	-630.5	-747.6	-802.6	-718.1	-668.9	-378.4
United Kingdom	-38.8	-30.3	-27.9	-30.0	-45.4	-59.4	-82.0	-71.1	-41.2	-27.1
Spain	-23.2	-24.1	-22.2	-30.9	-54.9	-83.4	-110.9	-144.5	-156.4	-80.4

Source: Authors' calculations based on IMF BOPs.

Table A.2. Real GDP growth

Per cent change from previous period

Panel A. Surplus economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008	2009
Canada	1.5	4.1	2.5	2.8	2.2	0.5	-2.5
China	10.9	8.6	9.8	12.7	14.2	9.6	9.1
Germany	2.7	2.0	0.6	3.4	2.7	1.0	-4.7
Hong Kong, China	5.0	2.7	4.2	7.0	6.4	2.4	*n/a*
India	5.2	5.8	7.0	9.4	9.6	5.1	7.7
Indonesia	8.1	1.0	4.7	5.5	6.3	6.0	4.5
Japan	2.1	1.0	1.3	2.0	2.4	-1.2	-5.2
Korea	8.0	4.6	4.5	5.2	5.1	2.3	0.2
Malaysia	9.4	5.0	4.8	5.8	6.5	4.7	-1.7
Netherlands	2.6	4.0	1.3	3.4	3.6	2.0	-4.0
Philippines	2.3	4.0	4.5	5.3	7.0	3.7	1.1
Singapore	8.9	6.4	5.6	8.6	8.5	1.8	-1.3
Singapore[A]	0.0	0.0	3.3	8.6	8.5	1.8	-1.3
Sweden	0.8	3.5	2.7	4.3	3.3	-0.4	-5.1
Switzerland	0.7	2.0	1.3	3.6	3.6	1.9	-1.9
Thailand	9.0	0.6	5.1	5.1	4.9	2.5	-2.2
Viet Nam	7.7	7.0	7.5	8.2	8.5	6.3	5.3

Panel B. Deficit economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008	2009
Australia	2.5	4.3	3.2	3.1	3.8	3.7	1.3
France	1.4	2.8	1.7	2.2	2.4	0.2	-2.6
Greece	1.0	3.5	4.1	4.5	4.5	2.0	-2.0
Italy	1.4	1.9	0.9	2.0	1.5	-1.3	-5.0
Portugal	2.1	4.2	0.8	1.4	2.4	0.0	-2.6
Romania	-2.4	-1.2	5.7	7.9	6.0	9.4	-8.5
Spain	1.9	4.1	3.3	4.0	3.6	0.9	-3.6
Turkey	4.3	4.1	4.7	6.9	4.7	0.7	-4.7
United Kingdom	1.5	3.4	2.5	2.9	2.6	0.5	-4.9
United States	2.4	4.3	2.4	2.7	1.9	0.0	-2.6

A. Data for Singapore comes from the Singapore Department of Statistics.

Source: World Bank Development Indicators.

Table A.3. Consumer Price Index

Per cent change from previous period

Panel A. Surplus economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008	2009
Canada	2.7	1.7	2.3	2.0	2.1	2.4	0.3
China	11.4	1.8	1.4	1.5	4.8	5.9	-0.7
Germany	2.3	1.3	1.5	1.6	2.3	2.6	0.3
Japan	1.6	0.3	-0.4	0.2	0.1	1.4	-1.4
Malaysia	3.7	3.1	1.7	3.6	2.0	5.4	0.6
Netherlands	2.7	2.1	2.5	1.1	1.6	2.5	1.2
Singapore	2.7	0.9	0.6	1.0	2.1	6.5	0.6
Sweden	5.2	0.5	1.5	1.4	2.2	3.4	-0.3
Switzerland	3.5	0.7	0.8	1.1	0.7	2.4	-0.5

Panel B. Deficit economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008	2009
Australia	3.3	1.9	3.0	3.5	2.3	4.4	1.8
France	2.4	1.2	1.9	1.68	1.49	2.82	0.08
Greece	15.0	4.9	3.4	3.2	2.9	4.2	1.2
Italy	5.3	2.4	2.4	2.1	1.8	3.3	0.8
Portugal	8.2	2.6	3.2	2.7	2.8	2.6	-0.8
Romania	144.3	68.8	18.6	6.6	4.8	7.8	5.6
Spain	5.4	2.6	3.2	3.5	2.8	4.1	-0.4
Turkey	76.1	74.1	29.1	10.5	8.8	10.4	6.3
United Kingdom	4.4	2.7	2.4	3.2	4.3	4.0	-0.6
United States	3.5	2.5	2.6	3.2	2.9	3.8	-0.4

Source: IMF's International Financial Statistics (IFS).

Table A.4. Foreign direct investment

Net inflows as a share of GDP

Panel A. Surplus economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008
Canada	1.1	4.0	2.0	4.7	8.3	3.7
China	3.7	4.1	3.2	2.9	4.0	3.3
Germany	0.2	3.1	1.3	1.9	2.3	0.7
Japan	0.0	0.1	0.2	-0.2	0.5	0.5
Malaysia	6.7	4.4	2.5	3.9	4.5	3.3
Netherlands	2.4	8.5	6.1	1.0	15.5	0.7
Singapore	10.8	14.3	13.8	20.0	20.2	5.6
Sweden	2.3	9.1	3.4	6.7	5.9	8.0
Switzerland	1.2	4.1	2.4	8.3	10.3	2.5

Source: World Bank Development Indicators.

Panel B. Deficit economies

	1990-1995	1996-2000	2001-2005	2006	2007	2008
Australia	2.0	1.8	1.8	3.5	4.8	4.5
France	1.4	2.3	3.0	3.2	3.8	2.3
Greece	1.0	0.6	0.6	2.0	0.6	1.5
Italy	0.3	0.5	1.1	2.1	1.9	0.7
Portugal	1.9	2.4	2.8	5.5	1.3	1.9
Romania	0.5	2.9	4.7	9.3	5.9	6.9
Spain	2.0	3.0	3.6	2.5	4.6	4.7
Turkey	0.5	0.4	1.1	3.8	3.4	2.5
United Kingdom	1.8	4.9	3.4	6.3	7.2	3.5
United States	0.6	2.2	1.0	1.8	1.9	2.3

Table A.5. Product Market Regulation, 2008

Higher values equate to more restrictive regimes

Canada	China	Germany	Japan	Netherlands	Sweden	Switzerland	OECD average
0.95	3.30	1.33	1.11	0.97	1.30	1.18	1.41

Source: OECD. Data is unavailable for Chinese Taipei, Malaysia and Singapore.

Table A.6. Public health expenditure

Per cent of GDP

	1995	2000	2005	2009
Canada	6.4	6.2	6.6	7.5
China	1.8	1.8	1.8	2.3
Germany	8.2	8.2	7.9	8.6
Japan	5.7	6.2	6.6	6.7
Malaysia	1.4	1.7	1.8	2.2
Netherlands	5.9	5.0	5.9	8.3
Singapore	1.5	1.3	1.0	1.6
Sweden	6.9	7.0	7.2	7.8
Switzerland	5.1	5.6	6.7	6.7

Source: World Development Indicators. Data is unavailable for Chinese Taipei.

Table A.7. FDI Restrictiveness Index

2009

Panel A. Surplus economies

	Canada	China	Germany	Japan	Netherlands	Sweden	Switzerland
Agriculture and Forestry	0.00	0.55	0.00	1.00	0.00	0.00	0.00
Fishing	0.60	1.00	0.28	1.00	0.25	0.55	0.00
Mining (including oil extraction)	0.15	0.39	0.00	1.00	0.00	0.00	0.00
Manufacturing	0.10	0.25	0.00	0.08	0.00	0.00	0.00
Electricity	0.10	0.61	0.00	0.00	0.00	0.00	0.50
Construction	0.10	0.27	0.00	0.00	0.00	0.00	0.00
Distribution	0.10	0.24	0.00	0.00	0.00	0.00	0.00
Transport	0.27	0.67	0.20	0.67	0.08	0.29	0.25
Hotels and restaurants	0.10	0.25	0.00	0.00	0.00	0.00	0.00
Media	0.70	1.00	0.03	0.00	0.00	0.20	0.47
Communications	0.60	0.80	0.00	0.50	0.00	0.20	0.00
Financial services	0.07	0.61	0.01	0.00	0.00	0.00	0.07
Business services	0.10	0.14	0.00	0.00	0.00	0.05	0.00
FDI Index Total	**0.16**	**0.46**	**0.02**	**0.26**	**0.02**	**0.06**	**0.08**

Panel B. Deficit economies

	Australia	France	Greece	Italy	Portugal	Spain	Turkey	United	United	Romania
Agriculture and Forestry	0.08	0.23	0.08	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Fishing	0.08	0.15	0.24	0.50	0.02	0.00	0.00	0.57	0.55	0.00
Mining (including oil extraction)	0.09	0.01	0.11	0.02	0.00	0.05	0.05	0.02	0.10	0.00
Manufacturing	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Electricity	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.22	0.00
Construction	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Distribution	0.08	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Transport	0.23	0.15	0.17	0.15	0.08	0.08	0.21	0.11	0.55	0.17
Hotels and restaurants	0.08	0.00	0.03	0.02	0.01	0.00	0.00	0.02	0.00	0.00
Media	0.20	0.05	0.13	0.36	0.00	0.23	0.25	0.25	0.30	0.00
Communications	0.40	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.00
Financial services	0.13	0.05	0.04	0.02	0.02	0.00	0.00	0.02	0.04	0.00
Business services	0.10	0.00	0.07	0.00	0.00	0.11	0.13	0.02	0.00	0.00
FDI Index TotalL	**0.13**	**0.04**	**0.06**	**0.05**	**0.01**	**0.02**	**0.07**	**0.06**	**0.08**	**0.01**

Source: OECD. Data is unavailable for Chinese Taipei, Malaysia and Singapore.

Table A.8. Comparative advantage and tariff rates: Deficit countries (2-digit HS chapters), 2007

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Australia	H0-01	Live animals	4.79	0	0.55
	H0-02	Meat and edible meat offal	6.66	0	0.09
	H0-04	Dairy prod birds' eggs natural	3.18	0.17	0.71
	H0-10	Cereals	2.95	0	0.75
	H0-11	Prod.mill.indust malt starches	3.74	0.71	3.32
	H0-22	Beverages spirits and vinegar.	3.09	3.95	8.49
	H0-26	Ores slag and ash.	18.49	0	0.61
	H0-28	Inorgn chem compds of prec mtl	5.84	0.43	9.71
	H0-41	Raw hides and skins (other than	2.84	3.48	8.37
	H0-51	Wool fine/coarse animal hair ho	14.96	4.08	8.76
	H0-71	Natural/cultured pearls prec st	3.45	1.04	5.09
	H0-75	Nickel and articles thereof.	3.48	0.29	0.29
	H0-76	Aluminium and articles thereof.	3.28	4.17	4.58
	H0-78	Lead and articles thereof.	12.95	0.31	0.21
	H0-79	Zinc and articles thereof.	6.88	0.28	0.28

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
France	H0-01	Live animals	3.66	1.23	2.6
	H0-04	Dairy prod birds' eggs natural	2.72	5.34	5.34
	H0-10	Cereals	2.19	1.26	5.38
	H0-11	Prod.mill.indust malt starches	2.28	12.18	12.18
	H0-19	Prep.of cereal flour starch/mil	2.14	10.65	10.65
	H0-22	Beverages spirits and vinegar.	4.76	3.94	3.94
	H0-30	Pharmaceutical products.	2.02	0	0.52
	H0-33	Essential oils & resinoids perf	4.72	2.52	2.48
	H0-35	Albuminoidal subs modified star	2.12	4.62	4.49
	H0-38	Miscellaneous chemical products	1.97	5.37	4.84
	H0-42	Articles of leather saddlery/ha	2.29	4.37	4.57
	H0-53	Other vegetable textile fibres	2.68	2.76	2.76
	H0-88	Aircraft spacecraft and parts t	4.25	1.93	2.03

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Greece	H0-03	Fish & crustacean mollusc & oth	4.91	10	11.28
	H0-04	Dairy prod birds' eggs natural	3.19	5.34	5.34
	H0-07	Edible vegetables and certain r	2.26	9.01	8.94
	H0-08	Edible fruit and nuts peel of c	6.41	6.79	6.61
	H0-15	Animal/veg fats & oils & their	4.28	5.64	5.56
	H0-19	Prep.of cereal flour starch/mil	2.96	10.65	10.65
	H0-20	Prep of vegetable fruit nuts or	12.32	17.54	17.92
	H0-21	Miscellaneous edible preparatio	1.99	9.53	9.26
	H0-24	Tobacco and manufactured tobacc	9.41	39.67	39.67
	H0-25	Salt sulphur earth & ston plast	6.89	0.22	0.22
	H0-30	Pharmaceutical products.	2.15	0	0.52
	H0-34	Soap organic surface-active age	3.84	1.64	1.96
	H0-43	Furskins and artificial fur ma	31.63	1.18	1.18
	H0-52	Cotton.	5.63	6.12	6.12
	H0-56	Wadding felt & nonwoven yarns t	3.74	5.92	5.9
	H0-60	Knitted or crocheted fabrics.	2.85	7.93	7.93
	H0-61	Art of apparel & clothing acces	3.38	11.68	11.69
	H0-68	Art of stone plaster cement asb	2.54	1.31	1.3
	H0-74	Copper and articles thereof.	2.86	3.22	3.26
	H0-76	Aluminium and articles thereof.	4.75	6.33	6.35
	H0-78	Lead and articles thereof.	2.82	2.4	2.55
	H0-79	Zinc and articles thereof.	4.70	3.06	3.06

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Italy	H0-19	Prep.of cereal flour starch/mil	2.55	10.65	10.65
	H0-22	Beverages spirits and vinegar.	2.25	3.94	3.94
	H0-41	Raw hides and skins (other than	4.61	2.35	2.81
	H0-42	Articles of leather saddlery/ha	3.16	4.37	4.57
	H0-50	Silk.	4.01	3.09	3.09
	H0-51	Wool fine/coarse animal hair ho	5.33	3.47	3.47
	H0-53	Other vegetable textile fibres	3.13	2.76	2.76
	H0-56	Wadding felt & nonwoven yarns t	2.53	5.92	5.9
	H0-62	Art of apparel & clothing acces	2.14	11.31	11.31
	H0-64	Footwear gaiters and the like p	3.56	10.75	10.74
	H0-65	Headgear and parts thereof.	2.01	2.33	2.17
	H0-68	Art of stone plaster cement asb	2.71	1.31	1.3
	H0-69	Ceramic products.	4.34	4.59	4.6
	H0-73	Articles of iron or steel.	2.34	1.68	1.68
	H0-83	Miscellaneous articles of base	2.24	2.22	2.23
	H0-93	Arms and ammunition parts and	2.16	2.09	2.09
	H0-94	Furniture bedding mattress matt	2.68	2.11	1.57

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Portugal	H0-16	Prep of meat fish or crustacean	1.97	14.98	14.86
	H0-22	Beverages spirits and vinegar.	3.70	3.94	3.94
	H0-24	Tobacco and manufactured tobacc	4.31	39.67	39.67
	H0-25	Salt sulphur earth & ston plast	2.72	0.22	0.22
	H0-44	Wood and articles of wood wood	1.98	2.26	2.12
	H0-45	Cork and articles of cork.	152.87	2.46	2.46
	H0-51	Wool fine/coarse animal hair ho	2.11	3.47	3.47
	H0-55	Man-made staple fibres.	2.48	6.21	6.2
	H0-56	Wadding felt & nonwoven yarns t	2.51	5.92	5.9
	H0-57	Carpets and other textile floor	2.10	7.34	7.34
	H0-58	Special woven fab tufted tex fa	2.25	7.34	7.35
	H0-59	Impregnated coated cover/lamina	1.95	6.12	6.11
	H0-61	Art of apparel & clothing acces	3.56	11.68	11.69
	H0-63	Other made up textile articles	5.07	10.2	10.13
	H0-64	Footwear gaiters and the like p	5.61	10.75	10.74
	H0-68	Art of stone plaster cement asb	3.29	1.31	1.3
	H0-69	Ceramic products.	5.78	4.59	4.6
	H0-70	Glass and glassware.	2.44	5.06	5.05
	H0-94	Furniture bedding mattress matt	2.17	2.11	1.57

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Spain	H0-02	Meat and edible meat offal	2.02	5.22	4.52
	H0-03	Fish & crustacean mollusc & oth	2.07	10	11.28
	H0-07	Edible vegetables and certain r	6.12	9.01	8.94
	H0-08	Edible fruit and nuts peel of c	5.83	6.79	6.61
	H0-13	Lac gums resins & other vegetab	3.26	2.44	2.21
	H0-15	Animal/veg fats & oils & their	2.54	5.64	5.56
	H0-20	Prep of vegetable fruit nuts or	3.04	17.54	17.92
	H0-22	Beverages spirits and vinegar.	2.35	3.94	3.94
	H0-32	Tanning/dyeing extract tannins	2.00	5.17	5.81
	H0-45	Cork and articles of cork.	9.64	2.46	2.46
	H0-68	Art of stone plaster cement asb	2.40	1.31	1.3
	H0-69	Ceramic products.	5.12	4.59	4.6
	H0-79	Zinc and articles thereof.	2.96	3.06	3.06
	H0-87	Vehicles o/t railw/tramw roll-s	2.40	5.79	5.78

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Turkey	H0-07	Edible vegetables and certain r	2.47	23.48	24.93
	H0-08	Edible fruit and nuts peel of c	5.65	47.23	48.8
	H0-11	Prod.mill.indust malt starches	5.29	37.44	42.65
	H0-14	Vegetable plaiting materials ve	3.65	0	15.3
	H0-20	Prep of vegetable fruit nuts or	3.70	53.85	55.68
	H0-24	Tobacco and manufactured tobacc	2.73	34.78	113.67
	H0-25	Salt sulphur earth & ston plast	5.07	0.22	10.92
	H0-43	Furskins and artificial fur ma	3.24	1.19	45
	H0-52	Cotton.	4.12	6.12	6.1
	H0-54	Man-made filaments.	3.79	5.99	33.36
	H0-55	Man-made staple fibres.	3.06	6.21	22.67
	H0-57	Carpets and other textile floor	9.41	7.3	56
	H0-58	Special woven fab tufted tex fa	5.99	7.37	40.97
	H0-59	Impregnated coated cover/lamina	2.04	6.15	13.56
	H0-60	Knitted or crocheted fabrics.	5.23	7.93	
	H0-61	Art of apparel & clothing acces	6.00	11.68	23.33
	H0-62	Art of apparel & clothing acces	4.07	11.31	28
	H0-63	Other made up textile articles	6.55	10.11	25
	H0-68	Art of stone plaster cement asb	3.45	1.39	20.9
	H0-69	Ceramic products.	2.69	4.6	20.73
	H0-72	Iron and steel.	2.50	3.57	25.17
	H0-73	Articles of iron or steel.	2.03	1.93	14.63
	H0-89	Ships boats and floating struct	2.18	1.1	
	H0-93	Arms and ammunition parts and	2.21	2.09	

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
United Kingdom	H0-22	Beverages spirits and vinegar.	3.18	3.94	3.94
	H0-30	Pharmaceutical products.	2.52	0	0.52
	H0-33	Essential oils & resinoids perf	2.18	2.52	2.48
	H0-49	Printed books newspapers pictur	3.16	0	0
	H0-97	Works of art collectors' pieces	9.71	0	0

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
United States	H0-10	Cereals	3.37	2.16	2.16
	H0-12	Oil seed oleagi fruits miscell	3.40	12.08	12.19
	H0-36	Explosives pyrotechnic prod mat	2.46	2.87	3.05
	H0-47	Pulp of wood/of other fibrous c	2.22	0	0
	H0-88	Aircraft spacecraft and parts t	4.78	0.2	0.2
	H0-93	Arms and ammunition parts and	4.87	0.94	1.16
	H0-97	Works of art collectors' pieces	3.93	0	0

Source: UN TRAINS database.

Table A.9. Comparative advantage and tariff rates: Surplus and other G-20 countries[1] (2-digit HS chapters), 2007

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Argentina	H0-02	Meat and edible meat offal	4.97	10.00	33.29
	H0-03	Fish & crustacean mollusc & oth	3.90	9.27	33.72
	H0-04	Dairy prod birds' eggs natural	3.09	13.90	33.84
	H0-05	Products of animal origin nes o	2.79	6.25	33.16
	H0-07	Edible vegetables and certain r	2.25	8.92	34.75
	H0-08	Edible fruit and nuts peel of c	4.32	9.85	33.41
	H0-10	Cereals	15.51	5.70	31.14
	H0-11	Prod.mill.indust malt starches	8.67	11.21	35.00
	H0-12	Oil seed oleagi fruits miscell	20.68	4.48	32.04
	H0-14	Vegetable plaiting materials ve	2.10	6.00	35.00
	H0-15	Animal/veg fats & oils & their	20.19	10.69	34.35
	H0-20	Prep of vegetable fruit nuts or	4.51	14.00	34.74
	H0-23	Residues & waste from the food	37.37	6.40	33.80
	H0-24	Tobacco and manufactured tobacc	2.25	16.80	35.00
	H0-26	Ores slag and ash.	2.97	2.89	35.00
	H0-35	Albuminoidal subs modified star	2.42	13.43	20.67
	H0-41	Raw hides and skins (other than	7.51	7.64	35.00
	H0-51	Wool fine/coarse animal hair ho	3.83	12.32	35.00
	H0-78	Lead and articles thereof.	2.08	9.60	35.00

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Brazil	H0-02	Meat and edible meat offal	10.24	10.00	39.14
	H0-05	Products of animal origin nes o	3.89	6.36	33.30
	H0-09	Coffee tea mati and spices.	11.49	10.00	35.06
	H0-10	Cereals	2.36	5.79	48.33
	H0-12	Oil seed oleagi fruits miscell	13.25	4.75	25.83
	H0-15	Animal/veg fats & oils & their	2.46	9.75	34.48
	H0-16	Prep of meat fish or crustacean	3.90	16.00	43.46
	H0-17	Sugars and sugar confectionery.	15.47	16.50	34.38
	H0-20	Prep of vegetable fruit nuts or	4.64	14.00	35.65
	H0-23	Residues & waste from the food	6.68	6.43	35.75
	H0-24	Tobacco and manufactured tobacc	6.41	16.80	37.87
	H0-26	Ores slag and ash.	8.72	2.89	35.00
	H0-41	Raw hides and skins (other than	5.90	7.79	34.86
	H0-44	Wood and articles of wood wood	2.32	7.95	18.68
	H0-47	Pulp of wood/of other fibrous c	6.89	3.62	29.29
	H0-64	Footwear gaiters and the like p	2.09	22.58	35.00
	H0-68	Art of stone plaster cement asb	2.57	8.98	35.00
	H0-88	Aircraft spacecraft and parts t	2.31	2.27	32.37
	H0-93	Arms and ammunition parts and	2.21	20.00	34.25

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Canada	H0-01	Live animals	4.67	0.50	0.51
	H0-10	Cereals	2.44	11.45	15.53
	H0-12	Oil seed oleagi fruits miscell	2.70	0.71	1.01
	H0-28	Inorgn chem compds of prec mtl	2.10	1.39	3.14
	H0-31	Fertilisers	3.43	0.00	0.14
	H0-44	Wood and articles of wood wood	3.35	1.78	2.83
	H0-47	Pulp of wood/of other fibrous c	5.94	0.00	0.00
	H0-48	Paper & paperboard art of paper	2.34	0.00	0.00
	H0-75	Nickel and articles thereof.	7.49	0.09	1.78
	H0-76	Aluminium and articles thereof.	2.36	3.66	5.19
	H0-78	Lead and articles thereof.	2.32	1.63	2.40
	H0-79	Zinc and articles thereof.	3.32	0.22	1.21

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
China	H0-05	Products of animal origin nes o	2.02	11.44	11.61
	H0-16	Prep of meat fish or crustacean	1.96	11.82	11.88
	H0-36	Explosives pyrotechnic prod mat	2.16	8.00	8.38
	H0-42	Articles of leather saddlery/ha	3.58	15.66	15.63
	H0-46	Manufactures of straw esparto/o	7.51	9.05	10.00
	H0-50	Silk.	4.71	8.00	8.00
	H0-52	Cotton.	2.10	8.86	8.86
	H0-54	Man-made filaments.	2.07	7.46	7.46
	H0-55	Man-made staple fibres.	2.24	8.46	8.43
	H0-58	Special woven fab tufted tex fa	3.78	10.25	10.25
	H0-60	Knitted or crocheted fabrics.	2.61	10.23	10.23
	H0-61	Art of apparel & clothing acces	4.05	16.21	16.19
	H0-62	Art of apparel & clothing acces	3.12	15.89	15.89
	H0-63	Other made up textile articles	3.71	14.68	14.68
	H0-64	Footwear gaiters and the like p	3.42	19.15	19.88
	H0-65	Headgear and parts thereof.	4.13	16.81	16.96
	H0-66	Umbrellas walking-sticks seat-s	7.16	12.00	12.50
	H0-67	Prepr feathers & down arti flow	5.94	21.50	21.56
	H0-81	Other base metals cermets artic	2.28	5.20	5.17
	H0-86	Railw/tramw locom rolling-stock	3.26	3.94	3.94
	H0-92	Musical instruments parts and a	2.39	19.64	19.64
	H0-94	Furniture bedding mattress matt	2.45	7.29	7.26
	H0-95	Toys games & sports requisites	3.57	10.87	10.87
	H0-96	Miscellaneous manufactured arti	2.79	19.68	20.26

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Chinese Taipei	H0-39	Plastics and articles thereof.	2.05	3.96	4.05
	H0-54	Man-made filaments.	4.70	5.60	6.21
	H0-55	Man-made staple fibres.	2.91	6.85	7.21
	H0-58	Special woven fab tufted tex fa	2.29	9.02	9.02
	H0-59	Impregnated coated cover/lamina	3.75	7.27	7.42
	H0-60	Knitted or crocheted fabrics.	4.56	9.79	9.28
	H0-80	Tin and articles thereof.	1.98	0.25	0.25
	H0-82	Tool implement cutlery spoon &	2.37	7.56	7.85
	H0-85	Electrical mchy equip parts the	2.75	4.04	4.26
	H0-90	Optical photo cine meas checkin	2.69	1.71	1.74
	H0-92	Musical instruments parts and a	2.29	6.98	6.98

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
India	H0-03	Fish & crustacean mollusc & oth	2.17	30.00	..
	H0-09	Coffee tea matï and spices.	4.87	56.77	128.12
	H0-10	Cereals	3.53	49.38	86.25
	H0-13	Lac gums resins & other vegetab	9.69	30.00	101.67
	H0-14	Vegetable plaiting materials ve	4.69	30.00	100.00
	H0-17	Sugars and sugar confectionery.	3.45	48.44	124.69
	H0-23	Residues & waste from the food	3.73	30.00	101.52
	H0-25	Salt sulphur earth & ston plast	3.43	12.28	39.26
	H0-26	Ores slag and ash.	4.68	5.61	31.00
	H0-41	Raw hides and skins (other than	2.38	9.46	27.64
	H0-42	Articles of leather saddlery/ha	2.77	13.38	..
	H0-50	Silk.	9.83	16.67	100.00
	H0-52	Cotton.	8.28	12.68	28.65
	H0-53	Other vegetable textile fibres	4.34	17.07	56.43
	H0-54	Man-made filaments.	2.74	12.50	20.45
	H0-55	Man-made staple fibres.	3.81	12.50	20.87
	H0-57	Carpets and other textile floor	8.51	12.50	35.00
	H0-61	Art of apparel & clothing acces	2.27	12.50	36.67
	H0-62	Art of apparel & clothing acces	2.88	12.50	37.50
	H0-63	Other made up textile articles	5.32	12.50	35.00
	H0-67	Prepr feathers & down arti flow	4.60	12.50	..
	H0-68	Art of stone plaster cement asb	2.22	12.50	40.00
	H0-71	Natural/cultured pearls prec st	6.16	12.50	40.00
	H0-97	Works of art collectors' pieces	2.28	10.71	..

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Indonesia	H0-03	Fish & crustacean mollusc & oth	3.07	5.86	40.00
	H0-09	Coffee tea matï and spices.	4.65	4.84	43.49
	H0-13	Lac gums resins & other vegetab	2.06	4.75	39.50
	H0-14	Vegetable plaiting materials ve	8.39	1.67	40.00
	H0-15	Animal/veg fats & oils & their	19.26	4.22	40.27
	H0-18	Cocoa and cocoa preparations.	4.02	12.58	40.00
	H0-26	Ores slag and ash.	5.21	4.19	40.00
	H0-27	Mineral fuels oils & product of	2.09	3.99	40.00
	H0-40	Rubber and articles thereof.	5.32	7.81	39.42
	H0-44	Wood and articles of wood wood	3.06	4.32	40.00
	H0-46	Manufactures of straw esparto/o	3.30	10.00	40.00
	H0-47	Pulp of wood/of other fibrous c	3.42	1.43	34.76
	H0-48	Paper & paperboard art of paper	2.38	4.90	39.86
	H0-54	Man-made filaments.	3.54	9.68	22.25
	H0-55	Man-made staple fibres.	5.97	8.76	23.62
	H0-62	Art of apparel & clothing acces	2.33	14.24	35.00
	H0-64	Footwear gaiters and the like p	2.37	20.19	39.71
	H0-67	Prepr feathers & down arti flow	3.78	14.38	40.00
	H0-74	Copper and articles thereof.	2.18	5.91	40.00
	H0-75	Nickel and articles thereof.	6.54	4.88	40.00
	H0-80	Tin and articles thereof.	24.22	4.40	40.00
	H0-92	Musical instruments parts and a	8.05	8.82	40.00

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Japan	H0-37	Photographic or cinematographic	4.53	0.00	0.00
	H0-87	Vehicles o/t railw/tramw roll-s	2.57	0.11	0.11
	H0-89	Ships boats and floating struct	2.80	0.00	0.00
	H0-92	Musical instruments parts and a	2.22	0.00	0.00

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Korea	H0-54	Man-made filaments.	2.51	7.65	13.48
	H0-59	Impregnated coated cover/lamina	2.27	8.25	13.00
	H0-60	Knitted or crocheted fabrics.	4.72	10.00	30.00
	H0-79	Zinc and articles thereof.	2.24	5.44	10.33
	H0-89	Ships boats and floating struct	9.24	3.44	2.83
	H0-90	Optical photo cine meas checkin	2.20	6.44	8.22

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Malaysia	H0-15	Animal/veg fats & oils & their	14.25	2.55	5.71
	H0-18	Cocoa and cocoa preparations.	2.14	13.00	12.00
	H0-40	Rubber and articles thereof.	2.89	19.46	24.01
	H0-44	Wood and articles of wood wood	2.98	15.01	20.09
	H0-80	Tin and articles thereof.	4.93	1.72	7.34
	H0-85	Electrical mchy equip parts the	2.23	6.17	13.47

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Netherlands	H0-01	Live animals	2.81	1.23	2.60
	H0-02	Meat and edible meat offal	2.70	5.22	4.52
	H0-04	Dairy prod birds' eggs natural	3.03	5.34	5.34
	H0-06	Live tree & other plant bulb ro	14.13	6.59	6.98
	H0-07	Edible vegetables and certain r	3.95	9.01	8.94
	H0-14	Vegetable plaiting materials ve	2.70	0.00	0.00
	H0-18	Cocoa and cocoa preparations.	3.27	6.13	6.13
	H0-20	Prep of vegetable fruit nuts or	2.54	17.54	17.92
	H0-21	Miscellaneous edible preparatio	2.02	9.53	9.26
	H0-23	Residues & waste from the food	2.63	0.80	0.81
	H0-24	Tobacco and manufactured tobacc	4.27	39.67	39.67
	H0-35	Albuminoidal subs modified star	2.06	4.62	4.49
	H0-57	Carpets and other textile floor	2.67	7.34	7.34

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Saudi Arabia	H0-27	Mineral fuels oils & product of	7.20	5.00	13.64

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Singapore	H0-80	Tin and articles thereof.	6.75	0.00	10.00
	H0-85	Electrical mchy equip parts the	2.75	0.00	5.30

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
South Africa	H0-08	Edible fruit and nuts peel of c	5.25	6.67	16.62
	H0-17	Sugars and sugar confectionery.	2.22	3.88	73.38
	H0-22	Beverages spirits and vinegar.	2.36	18.64	185.41
	H0-26	Ores slag and ash.	8.06	0.00	0.00
	H0-28	Inorgn chem compds of prec mtl	2.60	1.00	8.23
	H0-36	Explosives pyrotechnic prod mat	5.30	3.13	13.75
	H0-47	Pulp of wood/of other fibrous c	2.86	0.00	5.00
	H0-51	Wool fine/coarse animal hair ho	3.84	7.99	12.63
	H0-71	Natural/cultured pearls prec st	9.59	3.92	7.38
	H0-72	Iron and steel.	3.74	0.01	9.10
	H0-75	Nickel and articles thereof.	2.31	0.00	12.06
	H0-76	Aluminium and articles thereof.	3.16	5.50	15.42

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Sweden	H0-44	Wood and articles of wood wood	3.68	2.26	2.12
	H0-47	Pulp of wood/of other fibrous c	5.27	0.00	0.00
	H0-48	Paper & paperboard art of paper	5.25	0.00	0.00
	H0-78	Lead and articles thereof.	2.05	2.40	2.55
	H0-82	Tool implement cutlery spoon &	2.19	3.10	3.10

			RCA based on export flows	Simple average tariffs	
				MFN rate	Bound rate
Switzerland	H0-13	Lac gums resins & other vegetab	1.95	0.00	0.00
	H0-29	Organic chemicals.	3.48	0.00	0.00
	H0-30	Pharmaceutical products.	7.44	0.00	0.00
	H0-32	Tanning/dyeing extract tannins	2.98	0.00	0.00
	H0-33	Essential oils & resinoids perf	2.44	..	..
	H0-71	Natural/cultured pearls prec st	2.74	0.00	0.00
	H0-82	Tool implement cutlery spoon &	2.59	..	..
	H0-90	Optical photo cine meas checkin	2.34	0.00	0.00
	H0-91	Clocks and watches and parts th	33.22	..	..
	H0-93	Arms and ammunition parts and	2.05	..	..
	H0-97	Works of art collectors' pieces	6.87	0.00	0.00

1. Germany is not included in this table since it does not show a RCA index above 2 at the 2-digit level.

Source: UN TRAINS database.

Table A.10. Comparative advantage and tariff rates: Deficit countries (4-digit HS chapters), 2007

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Australia	H0-1101	Wheat or meslin flour.	2.07	0.00	1.00	4.26
	H0-1104	Cereal grains otherwise worked (for example, hulle	3.70	0.00	0.00	26.03
	H0-1107	Malt, whether or not roasted.	7.23	0.00	1.00	13.03
	H0-1109	Wheat gluten, whether or not dried.	15.33	0.00	1.00	3.48
	H0-2204	Wine of fresh grapes, including fortified wines g	8.41	5.00	13.44	26.20
	H0-2814	Ammonia, anhydrous or in aqueous solution.	3.74	0.00	10.00	1.68
	H0-2818	Artificial corundum, whether or not chemically def	33.91	0.83	10.00	1.72
	H0-2836	Carbonates peroxocarbonates (percarbonates) comm	2.86	0.63	10.00	2.21
	H0-2837	Cyanides, cyanide oxides and complex cyanides.	16.89	0.00	10.00	2.15
	H0-4707	Recovered (waste and scrap) paper or paperboard.	2.09	0.00	0.00	1.19

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
France	H0-1103	Cereal groats, meal and pellets.	3.73	..	..	20.92
	H0-1107	Malt, whether or not roasted.	3.32	..	..	13.03
	H0-1109	Wheat gluten, whether or not dried.	7.46	..	..	3.48
	H0-2201	Waters, including natural or artificial mineral wa	8.58	0.00	0.00	2.91
	H0-2204	Wine of fresh grapes, including fortified wines g	8.17	32.00	32.00	26.20
	H0-2207	Undenatured ethyl alcohol of an alcoholic strength	2.18	..	..	10.07
	H0-2208	Undenatured ethyl alcohol of an alcoholic strength	4.18	0.00	0.00	17.95
	H0-2823	Titanium oxides.	2.87	5.50	5.50	2.46
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	2.07	5.50	5.50	2.42
	H0-2829	Chlorates and perchlorates bromates and perbromat	2.29	4.81	4.81	2.29
	H0-2844	Radioactive chemical elements and radioactive isot	5.22	0.50	0.38	1.08
	H0-2925	Carboxyimide-function compounds (including sacchar	2.56	2.60	4.77	2.31
	H0-2926	Nitrile-function compounds.	2.07	3.35	6.38	2.29
	H0-2938	Glycosides, natural or reproduced by synthesis, an	1.93	0.71	6.28	1.83
	H0-2940	Sugars, chemically pure, other than sucrose, lacto	5.94	2.17	6.50	2.45
	H0-3001	Glands and other organs for organo-therapeutic use	3.16	0.00	0.00	0.00
	H0-3004	Medicaments (excluding goods of heading 30.02, 30.	2.14	0.00	0.00	0.72
	H0-3301	Essential oils (terpeneless or not), including con	2.60	3.22	3.09	2.26
	H0-3302	Mixtures of odoriferous substances and mixtures (i	2.40	2.13	2.13	3.11
	H0-3303	Perfumes and toilet waters.	8.68	0.00	0.00	3.78
	H0-3304	Beauty or make-up preparations and preparations fo	5.89	0.00	0.00	3.86
	H0-3305	Preparations for use on the hair.	3.55	0.00	0.00	4.86
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	2.42	6.50	6.50	4.80
	H0-4902	Newspapers, journals and periodicals, whether or n	1.94	0.00	0.00	0.00
	H0-6114	Other garments, knitted or crocheted.	2.31	12.00	12.00	8.30
	H0-8403	Central heating boilers other than those of headin	2.24	2.70	2.70	3.58
	H0-8408	Compression-ignition internal combustion piston en	2.89	2.57	3.08	2.83
	H0-8410	Hydraulic turbines, water wheels, and regulators t	2.03	4.50	4.50	2.58
	H0-8411	Turbo-jets, turbo-propellers and other gas turbine	2.33	1.39	1.71	1.79
	H0-8425	Pulley tackle and hoists other than skip hoists w	2.13	0.00	0.00	2.63
	H0-8427	Fork-lift trucks other works trucks fitted with l	2.19	4.33	4.33	3.32
	H0-8428	Other lifting, handling, loading or unloading mach	1.94	0.00	0.00	1.91
	H0-8432	Agricultural, horticultural or forestry machinery	1.94	0.00	0.00	1.21
	H0-8435	Presses, crushers and similar machinery used in th	3.66	1.70	1.70	2.39
	H0-8441	Other machinery for making up paper pulp, paper or	2.25	1.70	1.70	2.77
	H0-8448	Auxiliary machinery for use with machines of headi	2.39	1.70	1.70	2.10
	H0-8449	Machinery for the manufacture or finishing of felt	3.33	1.70	1.70	2.29
	H0-8482	Ball or roller bearings.	2.04	7.98	8.00	2.79

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Greece	H0-1101	Wheat or meslin flour.	1.91	..	..	4.26
	H0-2208	Undenatured ethyl alcohol of an alcoholic strength	1.96	0.00	0.00	17.95
	H0-2209	Vinegar and substitutes for vinegar obtained from	17.31	..	..	5.50
	H0-2806	Hydrogen chloride (hydrochloric acid) chlorosulph	1.93	5.50	5.50	2.10
	H0-2818	Artificial corundum, whether or not chemically def	9.43	3.07	4.90	1.72
	H0-3004	Medicaments (excluding goods of heading 30.02, 30.	2.60	0.00	0.00	0.72
	H0-3304	Beauty or make-up preparations and preparations fo	3.64	0.00	0.00	3.86
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	2.48	6.50	6.50	4.80
	H0-4901	Printed books, brochures, leaflets and similar pri	2.00	0.00	0.00	0.04
	H0-4905	Maps and hydrographic or similar charts of all kin	4.13	0.00	0.00	0.00
	H0-6104	Women's or girls' suits, ensembles, jackets, blaze	2.37	12.00	12.00	8.58
	H0-6106	Women's or girls' blouses, shirts and shirt-blouse	32.90	12.00	12.00	8.88
	H0-6107	Men's or boys' underpants, briefs, nightshirts, py	4.19	12.00	12.00	8.19
	H0-6109	T-shirts, singlets and other vests, knitted or cro	3.98	12.00	12.00	8.83
	H0-6112	Track suits, ski suits and swimwear, knitted or cr	3.03	11.00	11.00	8.97
	H0-6115	Panty hose, tights, stockings, socks and other hos	3.69	11.85	11.85	7.82
	H0-8418	Refrigerators, freezers and other refrigerating or	3.52	1.64	1.76	3.78
	H0-8451	Machinery (other than machines of heading 84.50) f	2.04	2.20	2.20	4.12
	H0-8463	Other machine-tools for working metal or cermets,	2.43	2.70	2.70	3.30
	H0-8470	Calculating machines and pocket-size data recordin	2.43	0.00	0.00	0.00
	H0-8478	Machinery for preparing or making up tobacco, not	3.52	1.70	1.70	2.79

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Italy	H0-1102	Cereal flours other than of wheat or meslin.	2.10	..	..	9.53
	H0-1103	Cereal groats, meal and pellets.	2.43	..	..	20.92
	H0-1106	Flour, meal and powder of the dried leguminous veg	2.28	8.65	8.65	4.33
	H0-2201	Waters, including natural or artificial mineral wa	3.63	0.00	0.00	2.91
	H0-2204	Wine of fresh grapes, including fortified wines g	4.62	32.00	32.00	26.20
	H0-2205	Vermouth and other wine of fresh grapes flavoured	13.74	..	..	23.57
	H0-2209	Vinegar and substitutes for vinegar obtained from	14.90	..	..	5.50
	H0-2824	Lead oxides red lead and orange lead.	4.26	5.50	5.50	2.37
	H0-2832	Sulphites thiosulphates.	3.43	5.50	5.50	2.44
	H0-2842	Other salts of inorganic acids or peroxoacids (inc	2.25	0.88	5.02	2.18
	H0-2928	Organic derivatives of hydrazine or of hydroxylami	3.22	5.20	3.25	2.13
	H0-2941	Antibiotics.	1.94	0.44	0.44	0.32
	H0-4903	Children's picture, drawing or colouring books.	2.43	0.00	0.00	0.57
	H0-4904	Music, printed or in manuscript, whether or not bo	2.00	0.00	0.00	1.19
	H0-4905	Maps and hydrographic or similar charts of all kin	3.25	0.00	0.00	0.00
	H0-6113	Garments, made up of knitted or crocheted fabrics	6.67	10.00	10.00	7.23
	H0-6114	Other garments, knitted or crocheted.	2.63	12.00	12.00	8.30
	H0-6115	Panty hose, tights, stockings, socks and other hos	3.75	11.85	11.85	7.82
	H0-6117	Other made up clothing accessories, knitted or cro	2.36	11.33	11.56	6.68
	H0-8403	Central heating boilers other than those of headin	5.03	2.70	2.70	3.58
	H0-8413	Pumps for liquids, whether or not fitted with a me	2.30	1.14	1.32	3.47
	H0-8414	Air or vacuum pumps, air or other gas compressors	2.45	1.54	1.83	3.06
	H0-8416	Furnace burners for liquid fuel, for pulverised so	3.71	1.70	1.70	2.92
	H0-8417	Industrial or laboratory furnaces and ovens, inclu	4.66	1.70	1.70	2.93
	H0-8418	Refrigerators, freezers and other refrigerating or	2.67	1.64	1.76	3.78
	H0-8419	Machinery, plant or laboratory equipment, whether	3.00	1.54	1.66	3.35
	H0-8420	Calendering or other rolling machines, other than	4.72	1.95	1.95	2.57
	H0-8422	Dish washing machines machinery for cleaning or d	6.45	1.87	2.22	3.57
	H0-8424	Mechanical appliances (whether or not hand-operate	2.48	1.56	1.49	3.33
	H0-8425	Pulley tackle and hoists other than skip hoists w	2.39	0.00	0.00	2.63
	H0-8426	Ships' derricks cranes, including cable cranes m	2.66	0.00	0.00	2.04
	H0-8428	Other lifting, handling, loading or unloading mach	1.97	0.00	0.00	1.91
	H0-8430	Other moving, grading, levelling, scraping, excava	2.71	0.00	0.00	2.53
	H0-8432	Agricultural, horticultural or forestry machinery	3.60	0.00	0.00	1.21
	H0-8433	Harvesting or threshing machinery, including straw	2.22	0.00	0.00	1.54
	H0-8435	Presses, crushers and similar machinery used in th	7.23	1.70	1.70	2.39
	H0-8436	Other agricultural, horticultural, forestry, poult	2.16	1.70	1.70	2.66
	H0-8437	Machines for cleaning, sorting or grading seed, gr	2.31	1.70	1.70	2.79
	H0-8438	Machinery, not specified or included elsewhere in	3.76	1.70	1.70	3.08
	H0-8439	Machinery for making pulp of fibrous cellulosic ma	1.99	1.70	1.70	2.94
	H0-8441	Other machinery for making up paper pulp, paper or	3.79	1.70	1.70	2.77
	H0-8444	Machines for extruding, drawing, texturing or cutt	2.29	1.70	1.70	2.24
	H0-8445	Machines for preparing textile fibres spinning, d	3.21	1.70	1.70	2.30
	H0-8446	Weaving machines (looms).	4.85	1.70	1.70	2.51
	H0-8447	Knitting machines, stitch-bonding machines and mac	2.94	1.70	1.70	2.53
	H0-8448	Auxiliary machinery for use with machines of headi	2.37	1.70	1.70	2.10
	H0-8449	Machinery for the manufacture or finishing of felt	2.04	1.70	1.70	2.29
	H0-8450	Household or laundry-type washing machines, includ	4.60	2.63	2.63	4.20
	H0-8451	Machinery (other than machines of heading 84.50) f	3.15	2.20	2.20	4.12
	H0-8453	Machinery for preparing, tanning or working hides,	13.22	1.70	1.70	2.56
	H0-8454	Converters, ladles, ingot moulds and casting machi	5.16	1.70	1.70	2.56
	H0-8455	Metal-rolling mills and rolls therefor.	7.01	2.70	2.70	1.97
	H0-8459	Machine-tools (including way-type unit head machin	2.45	2.43	2.43	3.47
	H0-8460	Machine-tools for deburring, sharpening, grinding,	2.30	2.26	2.26	3.31
	H0-8461	Machine-tools for planing, shaping, slotting, broa	2.98	2.01	2.01	3.07
	H0-8462	Machine-tools (including presses) for working meta	4.37	2.31	2.16	3.49
	H0-8463	Other machine-tools for working metal or cermets,	5.37	2.70	2.70	3.30
	H0-8464	Machine-tools for working stone, ceramics, concret	7.87	2.20	1.44	3.19
	H0-8465	Machine-tools (including machines for nailing, sta	5.75	2.70	2.70	3.43
	H0-8466	Parts and accessories suitable for use solely or p	2.27	1.20	1.00	2.62
	H0-8474	Machinery for sorting, screening, separating, wash	2.95	0.00	0.00	2.51
	H0-8475	Machines for assembling electric or electronic lam	1.97	1.70	1.70	2.54
	H0-8476	Automatic goods-vending machines (for example, pos	7.20	1.70	1.70	3.98
	H0-8477	Machinery for working rubber or plastics or for th	3.16	1.70	1.45	3.58
	H0-8478	Machinery for preparing or making up tobacco, not	5.70	1.70	1.70	2.79
	H0-8479	Machines and mechanical appliances having individu	1.92	1.42	1.34	3.29
	H0-8480	Moulding boxes for metal foundry mould bases mou	2.74	1.76	1.66	2.97
	H0-8481	Taps, cocks, valves and similar appliances for pip	3.38	2.20	2.20	2.90
	H0-8483	Transmission shafts (including cam shafts and cran	2.21	2.42	3.16	3.91

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Portugal	H0-1102	Cereal flours other than of wheat or meslin.	3.28	..	..	9.53
	H0-2202	Waters, including mineral waters and aerated water	1.91	9.60	9.60	5.92
	H0-2203	Beer made from malt.	4.32	0.00	0.00	22.50
	H0-2204	Wine of fresh grapes, including fortified wines g	7.59	32.00	32.00	26.20
	H0-2205	Vermouth and other wine of fresh grapes flavoured	4.67	..	..	23.57
	H0-2806	Hydrogen chloride (hydrochloric acid) chlorosulph	3.62	5.50	5.50	2.10
	H0-2808	Nitric acid sulphonitric acids.	2.99	5.50	5.50	2.05
	H0-2817	Zinc oxide zinc peroxide.	3.38	5.50	5.50	2.25
	H0-2824	Lead oxides red lead and orange lead.	5.08	5.50	5.50	2.37
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	3.16	5.50	5.50	2.42
	H0-2901	Acyclic hydrocarbons.	5.89	0.00	0.00	0.00
	H0-2904	Sulphonated, nitrated or nitrosated derivatives of	5.26	2.24	5.50	2.31
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	2.42	6.50	6.50	4.80
	H0-4704	Chemical wood pulp, sulphite, other than dissolvin	20.11	0.00	0.00	1.25
	H0-6101	Men's or boys' overcoats, car-coats, capes, cloaks	2.24	12.00	12.00	8.47
	H0-6104	Women's or girls' suits, ensembles, jackets, blaze	2.78	12.00	12.00	8.58
	H0-6105	Men's or boys' shirts, knitted or crocheted.	3.97	12.00	12.00	8.89
	H0-6106	Women's or girls' blouses, shirts and shirt-blouse	3.17	12.00	12.00	8.88
	H0-6107	Men's or boys' underpants, briefs, nightshirts, py	3.78	12.00	12.00	8.19
	H0-6109	T-shirts, singlets and other vests, knitted or cro	7.18	12.00	12.00	8.83
	H0-6110	Jerseys, pullovers, cardigans, waist-coats and sim	2.15	11.92	11.89	8.67
	H0-6111	Babies' garments and clothing accessories, knitted	4.56	10.76	10.62	7.49
	H0-6112	Track suits, ski suits and swimwear, knitted or cr	2.18	11.00	11.00	8.97
	H0-6114	Other garments, knitted or crocheted.	3.68	12.00	12.00	8.30
	H0-6115	Panty hose, tights, stockings, socks and other hos	4.79	11.85	11.85	7.82
	H0-6116	Gloves, mittens and mitts, knitted or crocheted.	2.04	8.81	8.81	6.24
	H0-8403	Central heating boilers other than those of headin	1.98	2.70	2.70	3.58
	H0-8426	Ships' derricks cranes, including cable cranes m	2.00	0.00	0.00	2.04
	H0-8440	Book-binding machinery, including book-sewing mach	7.71	1.70	1.70	2.68
	H0-8480	Moulding boxes for metal foundry mould bases mou	7.64	1.76	1.66	2.97

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Spain	H0-1103	Cereal groats, meal and pellets.	2.52	..	..	20.92
	H0-1106	Flour, meal and powder of the dried leguminous veg	10.68	8.65	8.65	4.33
	H0-2204	Wine of fresh grapes, including fortified wines g	4.67	32.00	32.00	26.20
	H0-2205	Vermouth and other wine of fresh grapes flavoured	8.50	..	..	23.57
	H0-2207	Undenatured ethyl alcohol of an alcoholic strength	1.95	..	..	10.07
	H0-2209	Vinegar and substitutes for vinegar obtained from	3.34	..	..	5.50
	H0-2820	Manganese oxides.	2.39	4.48	4.03	2.11
	H0-2824	Lead oxides red lead and orange lead.	5.40	5.50	5.50	2.37
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	2.30	5.50	5.50	2.42
	H0-2833	Sulphates alums peroxosulphates (persulphates).	2.88	4.63	5.19	2.24
	H0-2907	Phenols phenol-alcohols.	3.50	3.39	4.35	2.23
	H0-2911	Acetals and hemiacetals, whether or not with other	4.31	0.00	5.00	2.20
	H0-2912	Aldehydes, whether or not with other oxygen functi	2.97	4.00	5.50	2.29
	H0-2914	Ketones and quinones, whether or not with other ox	3.03	3.12	5.05	2.23
	H0-2923	Quaternary ammonium salts and hydroxides lecithin	2.13	1.90	6.23	2.40
	H0-2925	Carboxyimide-function compounds (including sacchar	2.63	2.60	4.77	2.31
	H0-2938	Glycosides, natural or reproduced by synthesis, an	2.33	0.71	6.28	1.83
	H0-2941	Antibiotics.	1.94	0.44	0.44	0.32
	H0-3003	Medicaments (excluding goods of heading 30.02, 30.	2.01	0.00	0.00	0.75
	H0-3303	Perfumes and toilet waters.	2.69	0.00	0.00	3.78
	H0-3305	Preparations for use on the hair.	2.48	0.00	0.00	4.86
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	2.89	6.50	6.50	4.80
	H0-4706	Pulps of fibres derived from recovered (waste and	3.96	0.00	0.00	1.29
	H0-4901	Printed books, brochures, leaflets and similar pri	2.42	0.00	0.00	0.04
	H0-6114	Other garments, knitted or crocheted.	1.92	12.00	12.00	8.30
	H0-8401	Nuclear reactors fuel elements (cartridges), non-	3.56	4.20	4.20	1.94
	H0-8408	Compression-ignition internal combustion piston en	2.01	2.57	3.08	2.83
	H0-8410	Hydraulic turbines, water wheels, and regulators t	2.61	4.50	4.50	2.58
	H0-8435	Presses, crushers and similar machinery used in th	3.66	1.70	1.70	2.39
	H0-8437	Machines for cleaning, sorting or grading seed, gr	2.29	1.70	1.70	2.79
	H0-8459	Machine-tools (including way-type unit head machin	3.49	2.43	2.43	3.47
	H0-8476	Automatic goods-vending machines (for example, pos	2.49	1.70	1.70	3.98

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Turkey	H0-1101	Wheat or meslin flour.	15.27	82.00	102.60	16.07
	H0-1103	Cereal groats, meal and pellets.	4.30	54.00	54.00	11.20
	H0-1106	Flour, meal and powder of the dried leguminous veg	22.97	25.40	30.80	14.56
	H0-2802	Sulphur, sublimed or precipitated colloidal sulph	3.16	4.60	..	3.42
	H0-2817	Zinc oxide zinc peroxide.	1.98	5.50	13.40	5.46
	H0-2819	Chromium oxides and hydroxides.	17.39	5.05	18.60	3.50
	H0-2832	Sulphites thiosulphates.	2.43	5.50	21.20	3.66
	H0-2847	Hydrogen peroxide, whether or not solidified with	3.90	5.50	14.80	4.27
	H0-2939	Vegetable alkaloids, natural or reproduced by synt	2.21	0.00	12.51	2.88
	H0-6101	Men's or boys' overcoats, car-coats, capes, cloaks	8.03	12.00	..	19.46
	H0-6102	Women's or girls' overcoats, car-coats, capes, clo	4.14	12.00	..	19.66
	H0-6104	Women's or girls' suits, ensembles, jackets, blaze	5.55	12.00	..	20.93
	H0-6105	Men's or boys' shirts, knitted or crocheted.	3.33	12.00	..	21.25
	H0-6106	Women's or girls' blouses, shirts and shirt-blouse	9.01	12.00	..	21.21
	H0-6107	Men's or boys' underpants, briefs, nightshirts, py	3.75	12.00	..	20.12
	H0-6108	Women's or girls' slips, petticoats, briefs, panti	4.43	12.00	..	20.33
	H0-6109	T-shirts, singlets and other vests, knitted or cro	11.49	12.00	..	21.74
	H0-6110	Jerseys, pullovers, cardigans, waist-coats and sim	3.71	11.92	..	20.23
	H0-6111	Babies' garments and clothing accessories, knitted	2.46	10.71	..	19.97
	H0-6114	Other garments, knitted or crocheted.	6.04	12.00	..	20.53
	H0-6115	Panty hose, tights, stockings, socks and other hos	11.39	11.78	20.00	18.35
	H0-6117	Other made up clothing accessories, knitted or cro	2.09	11.33	30.00	17.91
	H0-8403	Central heating boilers other than those of headin	3.05	2.70	..	6.53
	H0-8409	Parts suitable for use solely or principally with	2.86	2.08	19.58	6.20
	H0-8418	Refrigerators, freezers and other refrigerating or	4.67	2.16	5.00	14.18
	H0-8437	Machines for cleaning, sorting or grading seed, gr	9.21	1.70	..	3.33
	H0-8450	Household or laundry-type washing machines, includ	6.18	2.63	..	11.00
	H0-8451	Machinery (other than machines of heading 84.50) f	2.38	2.20	12.20	4.53
	H0-8462	Machine-tools (including presses) for working meta	4.09	2.31	15.42	3.55
	H0-8474	Machinery for sorting, screening, separating, wash	1.95	0.00	14.49	3.49

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
United Kingdom	H0-2203	Beer made from malt.	2.21	0.00	0.00	22.50
	H0-2208	Undenatured ethyl alcohol of an alcoholic strength	9.05	0.00	0.00	17.95
	H0-2822	Cobalt oxides and hydroxides commercial cobalt ox	2.12	4.60	4.60	1.84
	H0-2824	Lead oxides red lead and orange lead.	2.87	5.50	5.50	2.37
	H0-2842	Other salts of inorganic acids or peroxoacids (inc	2.05	0.88	5.02	2.18
	H0-2843	Colloidal precious metals inorganic or organic co	4.38	3.37	4.53	2.29
	H0-2901	Acyclic hydrocarbons.	2.81	0.00	0.00	0.00
	H0-2904	Sulphonated, nitrated or nitrosated derivatives of	2.26	2.24	5.50	2.31
	H0-2908	Halogenated, sulphonated, nitrated or nitrosated d	2.45	0.00	5.50	2.16
	H0-2911	Acetals and hemiacetals, whether or not with other	2.75	0.00	5.00	2.20
	H0-2919	Phosphoric esters and their salts, including lacto	2.20	3.79	6.50	2.62
	H0-2925	Carboxyimide-function compounds (including sacchar	3.74	2.60	4.77	2.31
	H0-2926	Nitrile-function compounds.	2.66	3.35	6.38	2.29
	H0-2930	Organo-sulphur compounds.	6.37	2.84	5.58	2.16
	H0-2931	Other organo-inorganic compounds.	1.92	0.81	6.50	2.57
	H0-2932	Heterocyclic compounds with oxygen hetero-atom(s)	3.34	5.65	6.05	2.51
	H0-2934	Nucleic acids and their salts, whether or not chem	1.95	0.26	3.68	2.23
	H0-3004	Medicaments (excluding goods of heading 30.02, 30.	2.73	0.00	0.00	0.72
	H0-3005	Wadding, gauze, bandages and similar articles (for	3.57	0.00	0.00	0.81
	H0-3304	Beauty or make-up preparations and preparations fo	2.18	0.00	0.00	3.86
	H0-3306	Preparations for oral or dental hygiene, including	4.59	1.33	1.33	3.26
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	3.59	6.50	6.50	4.80
	H0-4707	Recovered (waste and scrap) paper or paperboard.	3.03	0.00	0.00	1.19
	H0-4901	Printed books, brochures, leaflets and similar pri	5.06	0.00	0.00	0.04
	H0-4902	Newspapers, journals and periodicals, whether or n	3.97	0.00	0.00	0.00
	H0-4904	Music, printed or in manuscript, whether or not bo	6.81	0.00	0.00	1.19
	H0-4905	Maps and hydrographic or similar charts of all kin	7.91	0.00	0.00	0.00
	H0-4909	Printed or illustrated postcards printed cards be	2.69	0.00	0.00	2.80
	H0-8407	Spark-ignition reciprocating or rotary internal co	2.45	3.13	3.16	3.26
	H0-8411	Turbo-jets, turbo-propellers and other gas turbine	5.32	1.39	1.71	1.79
	H0-8423	Weighing machinery (excluding balances of a se	2.11	1.70	1.70	3.76
	H0-8427	Fork-lift trucks other works trucks fitted with l	3.12	4.33	4.33	3.32
	H0-8429	Self-propelled bulldozers, angledozers, graders, l	2.38	0.00	0.00	2.58
	H0-8437	Machines for cleaning, sorting or grading seed, gr	1.99	1.70	1.70	2.79
	H0-8442	Machinery, apparatus and equipment (other than the	2.29	1.51	1.56	2.58
	H0-8474	Machinery for sorting, screening, separating, wash	2.78	0.00	0.00	2.51
	H0-8478	Machinery for preparing or making up tobacco, not	3.51	1.70	1.70	2.79

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
United States	H0-1103	Cereal groats, meal and pellets.	2.36	4.50	4.50	20.92
	H0-1104	Cereal grains otherwise worked (for example, hulle	5.11	2.32	2.32	26.03
	H0-2804	Hydrogen, rare gases and other non-metals.	3.02	2.17	2.17	1.98
	H0-2810	Oxides of boron boric acids.	4.62	1.50	1.50	1.79
	H0-2812	Halides and halide oxides of non-metals.	2.99	2.78	2.78	2.41
	H0-2815	Sodium hydroxide (caustic soda) potassium hydroxi	2.43	0.93	0.93	2.27
	H0-2825	Hydrazine and hydroxylamine and their inorganic sa	1.91	3.07	3.02	2.10
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	1.93	3.05	3.05	2.42
	H0-2836	Carbonates peroxocarbonates (percarbonates) comm	2.32	2.02	2.01	2.21
	H0-2837	Cyanides, cyanide oxides and complex cyanides.	2.10	0.47	0.47	2.15
	H0-2840	Borates peroxoborates (perborates).	5.43	1.95	1.95	1.82
	H0-2844	Radioactive chemical elements and radioactive isot	2.05	1.37	1.37	1.08
	H0-2845	Isotopes other than those of heading 28.44 compou	3.43	0.00	0.00	1.35
	H0-2848	Phosphides, whether or not chemically defined, exc	7.25	1.30	1.30	2.22
	H0-2850	Hydrides, nitrides, azides, silicides and borides,	4.06	3.92	3.92	2.35
	H0-2903	Halogenated derivatives of hydrocarbons.	2.96	3.39	3.35	2.33
	H0-2907	Phenols phenol-alcohols.	2.11	4.47	4.44	2.23
	H0-2908	Halogenated, sulphonated, nitrated or nitrosated d	2.69	3.78	3.50	2.16
	H0-2909	Ethers, ether-alcohols, ether-phenols, ether-alcoh	2.58	3.58	3.59	2.35
	H0-2910	Epoxides, epoxyalcohols, epoxyphenols and epoxyeth	2.03	3.55	3.19	2.26
	H0-2915	Saturated acyclic monocarboxylic acids and their a	1.91	3.65	3.65	2.41
	H0-2916	Unsaturated acyclic monocarboxylic acids, cyclic m	1.97	4.05	4.05	2.39
	H0-2923	Quaternary ammonium salts and hydroxides lecithin	2.25	2.21	2.21	2.40
	H0-2926	Nitrile-function compounds.	3.52	3.38	3.33	2.29
	H0-2932	Heterocyclic compounds with oxygen hetero-atom(s)	2.26	3.70	3.86	2.51
	H0-2937	Hormones, prostaglandins, thromboxanes and leukotr	2.65	0.00	1.24	0.14
	H0-2938	Glycosides, natural or reproduced by synthesis, an	3.39	1.30	1.30	1.83
	H0-3001	Glands and other organs for organo-therapeutic use	3.27	0.00	0.00	0.00
	H0-3002	Human blood animal blood prepared for therapeutic	1.97	0.00	0.00	0.09
	H0-3003	Medicaments (excluding goods of heading 30.02, 30.	2.38	0.00	0.00	0.75
	H0-3301	Essential oils (terpeneless or not), including con	1.92	1.86	1.71	2.26
	H0-4706	Pulps of fibres derived from recovered (waste and	2.76	0.00	0.00	1.29
	H0-4707	Recovered (waste and scrap) paper or paperboard.	3.96	0.00	0.00	1.19
	H0-4902	Newspapers, journals and periodicals, whether or n	2.15	0.00	0.00	0.00
	H0-4904	Music, printed or in manuscript, whether or not bo	2.91	0.00	0.00	1.19
	H0-8407	Spark-ignition reciprocating or rotary internal co	1.99	0.17	0.23	3.26
	H0-8411	Turbo-jets, turbo-propellers and other gas turbine	3.68	0.41	0.31	1.79
	H0-8424	Mechanical appliances (whether or not hand-operate	1.92	0.61	0.61	3.33
	H0-8431	Parts suitable for use solely or principally with	2.72	0.00	0.00	2.48
	H0-8433	Harvesting or threshing machinery, including straw	2.04	0.00	0.00	1.54
	H0-8468	Machinery and apparatus for soldering, brazing or	2.00	1.94	1.94	2.92
	H0-8479	Machines and mechanical appliances having individu	1.90	0.62	0.60	3.29

Source: UN TRAINS database.

Table A.11. Comparative advantage and tariff rates: Surplus and other G-20 countries (4-digit HS chapters), 2007

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Argentina	H0-1101	Wheat or meslin flour.	17.30	12.00	35.00	16.07
	H0-1102	Cereal flours other than of wheat or meslin.	3.77	10.00	35.00	13.04
	H0-1105	Flour, meal, powder, flakes, granules and pellets	2.36	12.00	35.00	11.51
	H0-1107	Malt, whether or not roasted.	11.47	14.00	35.00	6.29
	H0-2204	Wine of fresh grapes, including fortified wines g	4.26	20.00	35.00	32.38
	H0-2207	Undenatured ethyl alcohol of an alcoholic strength	1.98	20.00	35.00	21.02
	H0-2810	Oxides of boron boric acids.	13.33	10.00	17.50	3.82
	H0-2813	Sulphides of non-metals commercial phosphorus tri	14.67	6.00	17.50	3.74
	H0-2819	Chromium oxides and hydroxides.	3.54	6.00	26.25	3.50
	H0-2824	Lead oxides red lead and orange lead.	3.53	10.00	17.50	4.42
	H0-2827	Chlorides, chloride oxides and chloride hydroxides	4.47	7.53	18.75	3.82
	H0-2830	Sulphides polysulphides, whether or not chemicall	6.30	4.29	17.50	3.71
	H0-2833	Sulphates alums peroxosulphates (persulphates).	2.60	8.22	17.50	4.52
	H0-2836	Carbonates peroxocarbonates (percarbonates) comm	2.12	8.80	21.00	3.86
	H0-2840	Borates peroxoborates (perborates).	6.93	8.00	17.50	3.62
	H0-2849	Carbides, whether or not chemically defined.	3.60	7.33	17.50	4.49
	H0-2918	Carboxylic acids with additional oxygen function a	2.00	8.49	23.46	3.66
	H0-3301	Essential oils (terpeneless or not), including con	11.87	9.66	20.00	6.14
	H0-3307	Pre-shave, shaving or after-shave preparations, pe	5.10	18.00	25.00	13.98

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Brazil	H0-1102	Cereal flours other than of wheat or meslin.	2.49	10.00	55.00	13.04
	H0-2207	Undenatured ethyl alcohol of an alcoholic strength	26.49	5.00	35.00	21.02
	H0-2804	Hydrogen, rare gases and other non-metals.	3.64	4.18	16.14	4.25
	H0-2818	Artificial corundum, whether or not chemically def	7.85	1.67	17.50	3.76
	H0-2820	Manganese oxides.	2.51	10.00	16.25	3.60
	H0-2847	Hydrogen peroxide, whether or not solidified with	4.28	10.00	17.50	4.27
	H0-2849	Carbides, whether or not chemically defined.	2.38	7.33	17.50	4.49
	H0-2909	Ethers, ether-alcohols, ether-phenols, ether-alcoh	1.96	9.28	20.00	3.75
	H0-2922	Oxygen-function amino-compounds.	2.01	6.30	21.00	3.40
	H0-2923	Quaternary ammonium salts and hydroxides lecithin	2.70	7.71	20.00	3.57
	H0-3301	Essential oils (terpeneless or not), including con	5.06	10.83	20.00	6.14
	H0-3306	Preparations for oral or dental hygiene, including	3.47	17.33	25.00	13.02
	H0-4702	Chemical wood pulp, dissolving grades.	2.90	4.00	35.00	2.34
	H0-4703	Chemical wood pulp, soda or sulphate, other than d	10.27	4.00	20.00	2.80
	H0-8409	Parts suitable for use solely or principally with	2.32	10.28	30.76	6.20
	H0-8410	Hydraulic turbines, water wheels, and regulators t	5.19	14.00	33.75	3.17
	H0-8429	Self-propelled bulldozers, angledozers, graders, l	2.50	8.32	34.82	3.08
	H0-8432	Agricultural, horticultural or forestry machinery	1.92	14.00	35.00	2.95
	H0-8433	Harvesting or threshing machinery, including straw	2.13	13.44	35.00	3.22
	H0-8455	Metal-rolling mills and rolls therefor.	1.94	13.07	29.67	2.61

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Canada	H0-1103	Cereal groats, meal and pellets.	2.91	1.83	2.61	20.92
	H0-1104	Cereal grains otherwise worked (for example, hulle	2.54	3.76	4.86	26.03
	H0-1107	Malt, whether or not roasted.	2.74	0.00	0.00	13.03
	H0-2801	Fluorine, chlorine, bromine and iodine.	3.59	0.00	0.00	1.82
	H0-2802	Sulphur, sublimed or precipitated colloidal sulph	13.69	0.00	0.00	1.73
	H0-2806	Hydrogen chloride (hydrochloric acid) chlorosulph	4.19	0.00	0.00	2.10
	H0-2807	Sulphuric acid oleum.	5.99	0.00	0.00	1.83
	H0-2814	Ammonia, anhydrous or in aqueous solution.	2.88	0.00	0.00	1.68
	H0-2817	Zinc oxide zinc peroxide.	3.84	2.75	5.50	2.25
	H0-2829	Chlorates and perchlorates bromates and perbromat	15.29	0.83	2.75	2.29
	H0-2844	Radioactive chemical elements and radioactive isot	9.00	0.00	3.30	1.08
	H0-2845	Isotopes other than those of heading 28.44 compou	6.61	0.00	5.50	1.35
	H0-2848	Phosphides, whether or not chemically defined, exc	2.67	0.00	0.00	2.22
	H0-2901	Acyclic hydrocarbons.	2.56	0.00	0.00	0.00
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	1.96	3.77	5.72	2.40
	H0-4701	Mechanical wood pulp.	2.22	0.00	0.00	1.25
	H0-4702	Chemical wood pulp, dissolving grades.	4.05	0.00	0.00	1.25
	H0-4703	Chemical wood pulp, soda or sulphate, other than d	6.86	0.00	0.00	1.25
	H0-4704	Chemical wood pulp, sulphite, other than dissolvin	5.65	0.00	0.00	1.25
	H0-4705	Wood pulp obtained by a combination of mechanical	22.44	0.00	0.00	1.25
	H0-4910	Calendars of any kind, printed, including calendar	2.62	0.00	0.00	2.29
	H0-8407	Spark-ignition reciprocating or rotary internal co	2.46	1.18	4.92	3.26
	H0-8432	Agricultural, horticultural or forestry machinery	2.19	0.00	0.00	1.21
	H0-8436	Other agricultural, horticultural, forestry, poult	1.94	0.33	1.02	2.66
	H0-8480	Moulding boxes for metal foundry mould bases mou	1.94	2.33	4.52	2.97

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
China	H0-2805	Alkali or alkaline-earth metals rare-earth metals	6.65	5.50	5.50	3.04
	H0-2820	Manganese oxides.	2.72	5.50	5.50	3.60
	H0-2821	Iron oxides and hydroxides earth colours containi	2.84	5.50	5.50	3.36
	H0-2822	Cobalt oxides and hydroxides commercial cobalt ox	3.02	5.50	5.50	3.41
	H0-2825	Hydrazine and hydroxylamine and their inorganic sa	2.76	5.50	5.50	3.20
	H0-2826	Fluorides fluorosilicates, fluoroaluminates and o	3.09	5.50	5.50	3.81
	H0-2827	Chlorides, chloride oxides and chloride hydroxides	2.31	5.43	5.43	3.82
	H0-2830	Sulphides polysulphides, whether or not chemicall	2.07	5.50	5.50	3.71
	H0-2831	Dithionites and sulphoxylates.	7.52	5.50	5.50	3.78
	H0-2833	Sulphates alums peroxosulphates (persulphates).	2.46	5.50	5.50	4.52
	H0-2835	Phosphinates (hypophosphites), phosphonates (phosp	2.80	5.50	5.50	4.03
	H0-2841	Salts of oxometallic or peroxometallic acids.	3.20	5.50	5.50	3.79
	H0-2846	Compounds, inorganic or organic, of rare-earth met	4.82	5.50	5.50	3.07
	H0-2849	Carbides, whether or not chemically defined.	3.00	5.50	5.50	4.49
	H0-2908	Halogenated, sulphonated, nitrated or nitrosated d	3.16	5.31	5.13	3.20
	H0-2913	Halogenated, sulphonated, nitrated or nitrosated d	2.18	5.50	5.50	3.09
	H0-2918	Carboxylic acids with additional oxygen function a	2.30	6.48	6.48	3.66
	H0-2919	Phosphoric esters and their salts, including lacto	2.09	6.50	6.50	3.00
	H0-2925	Carboxyimide-function compounds (including sacchar	2.71	7.00	7.00	3.34
	H0-2927	Diazo-, azo- or azoxy-compounds.	3.05	6.50	6.50	3.30
	H0-2931	Other organo-inorganic compounds.	2.04	6.50	6.50	3.44
	H0-2936	Provitamins and vitamins, natural or reproduced by	2.45	4.00	4.00	2.49
	H0-2938	Glycosides, natural or reproduced by synthesis, an	3.52	6.50	6.50	3.67
	H0-2941	Antibiotics.	1.98	4.33	4.33	2.66
	H0-4903	Children's picture, drawing or colouring books.	3.08	0.00	0.00	5.05
	H0-4909	Printed or illustrated postcards printed cards be	2.62	7.50	7.50	14.93
	H0-4910	Calendars of any kind, printed, including calendar	1.99	7.50	7.50	16.15
	H0-6101	Men's or boys' overcoats, car-coats, capes, cloaks	2.93	18.75	18.75	19.46
	H0-6102	Women's or girls' overcoats, car-coats, capes, clo	2.71	20.00	20.00	19.66
	H0-6103	Men's or boys' suits, ensembles, jackets, blazers,	7.94	18.75	18.75	21.16
	H0-6104	Women's or girls' suits, ensembles, jackets, blaze	6.13	16.97	16.97	20.93
	H0-6105	Men's or boys' shirts, knitted or crocheted.	2.33	16.50	16.50	21.25
	H0-6107	Men's or boys' underpants, briefs, nightshirts, py	4.01	14.63	14.63	20.12
	H0-6108	Women's or girls' slips, petticoats, briefs, panti	4.20	14.73	14.73	20.33
	H0-6109	T-shirts, singlets and other vests, knitted or cro	2.78	14.00	14.00	21.74
	H0-6110	Jerseys, pullovers, cardigans, waist-coats and sim	4.13	14.33	14.33	20.23
	H0-6111	Babies' garments and clothing accessories, knitted	4.30	14.67	14.67	19.97
	H0-6112	Track suits, ski suits and swimwear, knitted or cr	4.83	16.75	16.75	20.42
	H0-6113	Garments, made up of knitted or crocheted fabrics	3.37	16.00	16.00	19.92
	H0-6114	Other garments, knitted or crocheted.	1.91	16.50	16.50	20.53
	H0-6115	Panty hose, tights, stockings, socks and other hos	3.38	14.89	14.74	18.35
	H0-6116	Gloves, mittens and mitts, knitted or crocheted.	5.01	14.40	14.40	18.36
	H0-6117	Other made up clothing accessories, knitted or cro	3.21	14.00	14.00	17.91
	H0-8404	Auxiliary plant for use with boilers of heading 84	2.53	10.33	10.33	4.50
	H0-8415	Air conditioning machines, comprising a motor-driv	2.76	15.00	15.28	11.48
	H0-8423	Weighing machinery (excluding balances of a se	2.22	10.29	10.29	5.68
	H0-8452	Sewing machines, other than book-sewing machines o	2.89	14.50	14.50	4.51
	H0-8468	Machinery and apparatus for soldering, brazing or	1.97	10.75	10.75	4.03
	H0-8469	Typewriters other than printers of heading 84.71	1.96	9.00	10.50	4.61
	H0-8470	Calculating machines and pocket-size data recordin	3.85	0.00	0.00	3.73
	H0-8471	Automatic data processing machines and units there	4.07	0.00	0.00	2.06
	H0-8472	Other office machines (for example, hectograph or	1.92	9.33	10.00	4.34
	H0-8473	Parts and accessories (other than covers, carrying	2.49	3.08	3.08	3.40

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Germany	H0-1105	Flour, meal, powder, flakes, granules and pellets	1.97	12.20	12.20	22.52
	H0-2806	Hydrogen chloride (hydrochloric acid) chlorosulph	2.19	5.50	5.50	2.10
	H0-2808	Nitric acid sulphonitric acids.	2.21	5.50	5.50	2.05
	H0-2811	Other inorganic acids and other inorganic oxygen c	2.36	4.94	4.85	2.16
	H0-2812	Halides and halide oxides of non-metals.	2.11	5.50	5.50	2.41
	H0-2813	Sulphides of non-metals commercial phosphorus tri	3.57	5.00	5.00	2.12
	H0-2821	Iron oxides and hydroxides earth colours containi	3.54	4.60	4.60	2.38
	H0-2823	Titanium oxides.	2.00	5.50	5.50	2.46
	H0-2832	Sulphites thiosulphates.	3.00	5.50	5.50	2.44
	H0-2843	Colloidal precious metals inorganic or organic co	2.12	3.37	4.53	2.29
	H0-2910	Epoxides, epoxyalcohols, epoxyphenols and epoxyeth	2.83	3.30	5.50	2.26
	H0-2911	Acetals and hemiacetals, whether or not with other	2.47	0.00	5.00	2.20
	H0-2912	Aldehydes, whether or not with other oxygen functi	2.08	4.00	5.50	2.29
	H0-2919	Phosphoric esters and their salts, including lacto	2.56	3.79	6.50	2.62
	H0-2929	Compounds with other nitrogen function.	1.99	3.25	6.50	2.33
	H0-2934	Nucleic acids and their salts, whether or not chem	2.32	0.26	3.68	2.23
	H0-2939	Vegetable alkaloids, natural or reproduced by synt	5.60	0.00	0.00	0.01
	H0-2940	Sugars, chemically pure, other than sucrose, lacto	2.02	2.17	6.50	2.45
	H0-3006	Pharmaceutical goods specified in Note 4 to this C	3.03	0.00	1.80	1.25
	H0-4904	Music, printed or in manuscript, whether or not bo	2.64	0.00	0.00	1.19
	H0-4905	Maps and hydrographic or similar charts of all kin	2.00	0.00	0.00	0.00
	H0-4906	Plans and drawings for architectural, engineering,	5.86	0.00	0.00	1.19
	H0-4908	Transfers (decalcomanias).	2.05	0.00	0.00	1.91
	H0-4911	Other printed matter, including printed pictures a	2.10	0.00	0.00	1.88
	H0-8403	Central heating boilers other than those of headin	2.66	2.70	2.70	3.58
	H0-8405	Producer gas or water gas generators, with or with	2.51	1.70	1.70	2.41
	H0-8409	Parts suitable for use solely or principally with	2.46	1.99	2.08	3.01
	H0-8412	Other engines and motors.	1.94	1.67	2.05	2.48
	H0-8413	Pumps for liquids, whether or not fitted with a me	2.15	1.14	1.32	3.47
	H0-8416	Furnace burners for liquid fuel, for pulverised so	2.47	1.70	1.70	2.92
	H0-8420	Calendering or other rolling machines, other than	3.25	1.95	1.95	2.57
	H0-8421	Centrifuges, including centrifugal dryers filteri	1.95	1.34	1.32	3.36
	H0-8422	Dish washing machines machinery for cleaning or d	3.40	1.87	2.22	3.57
	H0-8423	Weighing machinery (excluding balances of a se	2.21	1.70	1.70	3.76
	H0-8424	Mechanical appliances (whether or not hand-operate	2.11	1.56	1.49	3.33
	H0-8433	Harvesting or threshing machinery, including straw	2.08	0.00	0.00	1.54
	H0-8434	Milking machines and dairy machinery.	1.97	0.00	0.00	1.90
	H0-8438	Machinery, not specified or included elsewhere in	2.28	1.70	1.70	3.08
	H0-8440	Book-binding machinery, including book-sewing mach	3.75	1.70	1.70	2.68
	H0-8441	Other machinery for making up paper pulp, paper or	2.33	1.70	1.70	2.77
	H0-8442	Machinery, apparatus and equipment (other than the	2.07	1.51	1.56	2.58
	H0-8444	Machines for extruding, drawing, texturing or cutt	3.30	1.70	1.70	2.24
	H0-8445	Machines for preparing textile fibres spinning, d	3.59	1.70	1.70	2.30
	H0-8447	Knitting machines, stitch-bonding machines and mac	2.71	1.70	1.70	2.53
	H0-8448	Auxiliary machinery for use with machines of headi	2.41	1.70	1.70	2.10
	H0-8449	Machinery for the manufacture or finishing of felt	4.78	1.70	1.70	2.29
	H0-8457	Machining centres, unit construction machines (sin	2.63	2.70	2.70	3.65
	H0-8459	Machine-tools (including way-type unit head machin	1.90	2.43	2.43	3.47
	H0-8460	Machine-tools for deburring, sharpening, grinding,	2.71	2.26	2.26	3.31
	H0-8461	Machine-tools for planing, shaping, slotting, broa	3.13	2.01	2.01	3.07
	H0-8463	Other machine-tools for working metal or cermets,	3.11	2.70	2.70	3.30
	H0-8465	Machine-tools (including machines for nailing, sta	2.71	2.70	2.70	3.43
	H0-8466	Parts and accessories suitable for use solely or p	1.97	1.20	1.00	2.62
	H0-8472	Other office machines (for example, hectograph or	2.20	1.89	1.96	2.33
	H0-8474	Machinery for sorting, screening, separating, wash	2.07	0.00	0.00	2.51
	H0-8477	Machinery for working rubber or plastics or for th	2.47	1.70	1.45	3.58
	H0-8478	Machinery for preparing or making up tobacco, not	2.37	1.70	1.70	2.79
	H0-8483	Transmission shafts (including cam shafts and cran	2.74	2.42	3.16	3.91
	H0-8484	Gaskets and similar joints of metal sheeting combi	2.09	1.13	1.13	3.26

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Japan	H0-2801	Fluorine, chlorine, bromine and iodine.	1.99	0.83	0.83	1.82
	H0-2812	Halides and halide oxides of non-metals.	4.91	3.30	3.30	2.41
	H0-2820	Manganese oxides.	2.69	3.30	3.30	2.11
	H0-2822	Cobalt oxides and hydroxides commercial cobalt ox	2.53	0.00	0.00	1.84
	H0-2823	Titanium oxides.	2.02	4.00	4.00	2.46
	H0-2826	Fluorides fluorosilicates, fluoroaluminates and o	2.55	1.92	2.06	2.03
	H0-2841	Salts of oxometallic or peroxometallic acids.	2.03	3.10	3.44	2.42
	H0-2846	Compounds, inorganic or organic, of rare-earth met	6.71	0.00	1.65	1.81
	H0-2902	Cyclic hydrocarbons.	2.78	0.00	0.00	0.19
	H0-2903	Halogenated derivatives of hydrocarbons.	2.30	3.01	2.33	2.33
	H0-2906	Cyclic alcohols and their halogenated, sulphonated	2.08	6.46	1.63	2.36
	H0-2907	Phenols phenol-alcohols.	2.56	2.55	2.37	2.23
	H0-2913	Halogenated, sulphonated, nitrated or nitrosated d	5.12	3.90	3.90	2.53
	H0-2919	Phosphoric esters and their salts, including lacto	3.10	3.90	0.00	2.62
	H0-2925	Carboxyimide-function compounds (including sacchar	1.93	1.53	0.78	2.31
	H0-2929	Compounds with other nitrogen function.	2.61	3.10	1.55	2.33
	H0-2930	Organo-sulphur compounds.	1.98	2.54	0.00	2.16
	H0-4908	Transfers (decalcomanias).	6.43	0.00	0.00	1.91
	H0-8406	Steam turbines and other vapour turbines.	4.92	0.00	0.00	2.22
	H0-8407	Spark-ignition reciprocating or rotary internal co	2.66	0.00	0.00	3.26
	H0-8409	Parts suitable for use solely or principally with	2.09	0.00	0.00	3.01
	H0-8427	Fork-lift trucks other works trucks fitted with l	1.90	0.00	0.00	3.32
	H0-8429	Self-propelled bulldozers, angledozers, graders, l	4.11	0.00	0.00	2.58
	H0-8443	Printing machinery used for printing by means of t	2.72	0.00	0.00	2.24
	H0-8444	Machines for extruding, drawing, texturing or cutt	1.95	0.00	0.00	2.24
	H0-8445	Machines for preparing textile fibres spinning, d	2.82	0.00	0.00	2.30
	H0-8446	Weaving machines (looms).	6.76	0.00	0.00	2.51
	H0-8447	Knitting machines, stitch-bonding machines and mac	4.19	0.00	0.00	2.53
	H0-8452	Sewing machines, other than book-sewing machines o	3.13	0.00	0.00	2.58
	H0-8454	Converters, ladles, ingot moulds and casting machi	2.02	0.00	0.00	2.56
	H0-8456	Machine-tools for working any material by removal	3.28	0.00	0.00	3.56
	H0-8457	Machining centres, unit construction machines (sin	6.33	0.00	0.00	3.65
	H0-8458	Lathes (including turning centres) for removing me	5.78	0.00	0.00	3.72
	H0-8459	Machine-tools (including way-type unit head machin	3.68	0.00	0.00	3.47
	H0-8460	Machine-tools for deburring, sharpening, grinding,	3.44	0.00	0.00	3.31
	H0-8461	Machine-tools for planing, shaping, slotting, broa	2.59	0.00	0.00	3.07
	H0-8462	Machine-tools (including presses) for working meta	2.26	0.00	0.00	3.49
	H0-8464	Machine-tools for working stone, ceramics, concret	3.08	0.00	0.00	3.19
	H0-8475	Machines for assembling electric or electronic lam	4.74	0.00	0.00	2.54
	H0-8477	Machinery for working rubber or plastics or for th	2.00	0.00	0.00	3.58
	H0-8479	Machines and mechanical appliances having individu	4.25	0.00	0.00	3.29
	H0-8480	Moulding boxes for metal foundry mould bases mou	2.52	0.00	0.00	2.97
	H0-8482	Ball or roller bearings.	2.30	0.00	0.00	2.79
	H0-8483	Transmission shafts (including cam shafts and cran	2.06	0.00	0.00	3.91
	H0-8484	Gaskets and similar joints of metal sheeting combi	2.41	0.00	0.00	3.26

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
India	H0-1102	Cereal flours other than of wheat or meslin.	2.34	30.00	150.00	13.04
	H0-1106	Flour, meal and powder of the dried leguminous veg	4.04	30.00	150.00	14.56
	H0-2802	Sulphur, sublimed or precipitated colloidal sulph	7.06	10.00	40.00	3.42
	H0-2803	Carbon (carbon blacks and other forms of carbon no	2.16	10.00	40.00	4.58
	H0-2807	Sulphuric acid oleum.	4.94	12.50	40.00	6.08
	H0-2818	Artificial corundum, whether or not chemically def	2.00	12.50	40.00	3.76
	H0-2823	Titanium oxides.	3.58	12.50	40.00	4.28
	H0-2826	Fluorides fluorosilicates, fluoroaluminates and o	2.31	12.50	40.00	3.81
	H0-2827	Chlorides, chloride oxides and chloride hydroxides	2.51	12.50	40.00	3.82
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	2.96	12.50	40.00	5.86
	H0-2831	Dithionites and sulphoxylates.	6.62	12.50	40.00	3.78
	H0-2832	Sulphites thiosulphates.	2.01	12.50	40.00	3.66
	H0-2848	Phosphides, whether or not chemically defined, exc	2.25	12.50	40.00	3.55
	H0-2902	Cyclic hydrocarbons.	3.07	12.29	27.50	3.03
	H0-2904	Sulphonated, nitrated or nitrosated derivatives of	10.43	12.50	40.00	4.41
	H0-2906	Cyclic alcohols and their halogenated, sulphonated	12.23	12.50	40.00	3.67
	H0-2908	Halogenated, sulphonated, nitrated or nitrosated d	3.83	12.50	40.00	3.20
	H0-2911	Acetals and hemiacetals, whether or not with other	2.69	12.50	40.00	3.04
	H0-2912	Aldehydes, whether or not with other oxygen functi	3.64	12.50	40.00	3.52
	H0-2913	Halogenated, sulphonated, nitrated or nitrosated d	3.27	12.50	40.00	3.09
	H0-2920	Esters of other inorganic acids of non-metals (exc	2.86	12.50	40.00	3.06
	H0-2921	Amine-function compounds.	2.55	12.50	40.00	3.54
	H0-2925	Carboxyimide-function compounds (including sacchar	4.46	12.50	40.00	3.34
	H0-2939	Vegetable alkaloids, natural or reproduced by synt	2.28	12.50	41.88	2.88
	H0-2941	Antibiotics.	4.08	12.50	40.00	2.66
	H0-2942	Other organic compounds.	69.09	12.50	40.00	2.91
	H0-3003	Medicaments (excluding goods of heading 30.02, 30.	5.64	12.50	38.75	4.34
	H0-3301	Essential oils (terpeneless or not), including con	10.20	30.00	146.88	6.14
	H0-6105	Men's or boys' shirts, knitted or crocheted.	6.16	12.50	..	21.25
	H0-6106	Women's or girls' blouses, shirts and shirt-blouse	4.19	12.50	..	21.21
	H0-6107	Men's or boys' underpants, briefs, nightshirts, py	5.28	12.50	..	20.12
	H0-6108	Women's or girls' slips, petticoats, briefs, panti	2.56	12.50	..	20.33
	H0-6109	T-shirts, singlets and other vests, knitted or cro	4.46	12.50	..	21.74
	H0-6111	Babies' garments and clothing accessories, knitted	4.70	12.50	..	19.97
	H0-6114	Other garments, knitted or crocheted.	2.13	12.50	..	20.53
	H0-8404	Auxiliary plant for use with boilers of heading 84	2.35	12.50	30.00	4.50
	H0-8484	Gaskets and similar joints of metal sheeting combi	2.02	12.50	40.00	6.75

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Indonesia	H0-1106	Flour, meal and powder of the dried leguminous veg	5.58	5.00	40.00	14.56
	H0-2813	Sulphides of non-metals commercial phosphorus tri	3.62	5.00	40.00	3.74
	H0-2814	Ammonia, anhydrous or in aqueous solution.	7.88	2.50	40.00	4.22
	H0-2902	Cyclic hydrocarbons.	2.88	0.69	37.50	3.03
	H0-2903	Halogenated derivatives of hydrocarbons.	2.10	4.52	40.00	3.56
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	2.32	3.25	40.00	3.88
	H0-2906	Cyclic alcohols and their halogenated, sulphonated	2.31	5.00	40.00	3.67
	H0-2922	Oxygen-function amino-compounds.	2.24	3.28	40.00	3.40
	H0-2927	Diazo-, azo- or azoxy-compounds.	15.95	7.50	40.00	3.30
	H0-3301	Essential oils (terpeneless or not), including con	4.90	4.69	40.00	6.14
	H0-4702	Chemical wood pulp, dissolving grades.	5.62	0.00	30.00	2.34
	H0-4703	Chemical wood pulp, soda or sulphate, other than d	4.78	0.00	30.00	2.80
	H0-6101	Men's or boys' overcoats, car-coats, capes, cloaks	7.10	15.00	35.00	19.46
	H0-6102	Women's or girls' overcoats, car-coats, capes, clo	6.19	13.75	35.00	19.66
	H0-6105	Men's or boys' shirts, knitted or crocheted.	3.17	15.00	35.00	21.25
	H0-6106	Women's or girls' blouses, shirts and shirt-blouse	4.89	15.00	35.00	21.21
	H0-6112	Track suits, ski suits and swimwear, knitted or cr	2.39	15.00	35.00	20.42
	H0-6114	Other garments, knitted or crocheted.	1.91	15.00	35.00	20.53
	H0-8404	Auxiliary plant for use with boilers of heading 84	2.47	8.33	33.33	4.50
	H0-8424	Mechanical appliances (whether or not hand-operate	5.43	8.54	30.83	3.96
	H0-8469	Typewriters other than printers of heading 84.71	54.52	5.00	35.00	4.61

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Malaysia	H0-1106	Flour, meal and powder of the dried leguminous veg	2.53	1.25	0.00	14.56
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	2.47	0.24	5.00	3.88
	H0-2915	Saturated acyclic monocarboxylic acids and their a	4.00	0.00	5.00	4.00
	H0-2916	Unsaturated acyclic monocarboxylic acids, cyclic m	2.77	0.21	5.00	3.10
	H0-6116	Gloves, mittens and mitts, knitted or crocheted.	3.79	16.00	20.00	18.36
	H0-8415	Air conditioning machines, comprising a motor-driv	2.60	20.83	28.75	11.48
	H0-8442	Machinery, apparatus and equipment (other than the	2.01	0.00	5.00	2.94
	H0-8469	Typewriters other than printers of heading 84.71	4.21	0.00	20.00	4.61
	H0-8471	Automatic data processing machines and units there	4.05	0.00	0.00	2.06
	H0-8473	Parts and accessories (other than covers, carrying	5.55	0.00	6.67	3.40

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Netherlands	H0-1105	Flour, meal, powder, flakes, granules and pellets	7.35	12.20	12.20	22.52
	H0-1108	Starches inulin.	3.28	19.20	19.20	27.82
	H0-1109	Wheat gluten, whether or not dried.	4.15	..	..	3.48
	H0-2202	Waters, including mineral waters and aerated water	3.13	9.60	9.60	5.92
	H0-2203	Beer made from malt.	5.17	0.00	0.00	22.50
	H0-2803	Carbon (carbon blacks and other forms of carbon no	2.70	0.00	0.00	1.78
	H0-2810	Oxides of boron boric acids.	2.61	1.85	1.85	1.79
	H0-2817	Zinc oxide zinc peroxide.	3.83	5.50	5.50	2.25
	H0-2839	Silicates commercial alkali metal silicates.	3.32	5.00	5.00	2.40
	H0-2840	Borates peroxoborates (perborates).	4.04	2.70	2.70	1.82
	H0-2842	Other salts of inorganic acids or peroxoacids (inc	4.14	0.88	5.02	2.18
	H0-2844	Radioactive chemical elements and radioactive isot	2.80	0.50	0.38	1.08
	H0-2847	Hydrogen peroxide, whether or not solidified with	4.06	5.50	5.50	2.88
	H0-2901	Acyclic hydrocarbons.	4.44	0.00	0.00	0.00
	H0-2902	Cyclic hydrocarbons.	3.73	0.00	0.00	0.19
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	2.33	3.93	4.92	2.40
	H0-2906	Cyclic alcohols and their halogenated, sulphonated	2.01	2.29	5.04	2.36
	H0-2909	Ethers, ether-alcohols, ether-phenols, ether-alcoh	5.05	2.75	4.99	2.35
	H0-2910	Epoxides, epoxyalcohols, epoxyphenols and epoxyeth	7.22	3.30	5.50	2.26
	H0-2911	Acetals and hemiacetals, whether or not with other	2.43	0.00	5.00	2.20
	H0-2912	Aldehydes, whether or not with other oxygen functi	2.78	4.00	5.50	2.29
	H0-2914	Ketones and quinones, whether or not with other ox	1.92	3.12	5.05	2.23
	H0-2915	Saturated acyclic monocarboxylic acids and their a	2.05	4.36	5.30	2.41
	H0-2923	Quaternary ammonium salts and hydroxides lecithin	3.57	1.90	6.23	2.40
	H0-2926	Nitrile-function compounds.	2.38	3.35	6.38	2.29
	H0-2928	Organic derivatives of hydrazine or of hydroxylami	2.27	5.20	3.25	2.13
	H0-2932	Heterocyclic compounds with oxygen hetero-atom(s)	2.77	5.65	6.05	2.51
	H0-2936	Provitamins and vitamins, natural or reproduced by	3.24	0.00	0.00	0.30
	H0-3002	Human blood animal blood prepared for therapeutic	2.35	0.00	0.00	0.09
	H0-4707	Recovered (waste and scrap) paper or paperboard.	1.99	0.00	0.00	1.19
	H0-8403	Central heating boilers other than those of headin	1.91	2.70	2.70	3.58
	H0-8405	Producer gas or water gas generators, with or with	3.01	1.70	1.70	2.41
	H0-8434	Milking machines and dairy machinery.	3.56	0.00	0.00	1.90
	H0-8436	Other agricultural, horticultural, forestry, poult	3.33	1.70	1.70	2.66
	H0-8438	Machinery, not specified or included elsewhere in	3.75	1.70	1.70	3.08
	H0-8443	Printing machinery used for printing by means of t	2.85	1.53	1.54	2.24
	H0-8473	Parts and accessories (other than covers, carrying	2.09	0.42	0.33	0.58
	H0-8478	Machinery for preparing or making up tobacco, not	1.93	1.70	1.70	2.79
	H0-8479	Machines and mechanical appliances having individu	2.04	1.42	1.34	3.29

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Saudia Arabia	H0-2815	Sodium hydroxide (caustic soda) potassium hydroxi	3.96	5.00	5.50	5.00
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	6.35	5.00	6.45	3.88
	H0-2906	Cyclic alcohols and their halogenated, sulphonated	7.02	5.00	5.50	3.67
	H0-2909	Ethers, ether-alcohols, ether-phenols, ether-alcoh	4.28	5.00	5.50	3.75

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
Singapore	H0-2802	Sulphur, sublimed or precipitated colloidal sulph	2.20	0.00	5.50	3.42
	H0-2902	Cyclic hydrocarbons.	2.72	0.00	0.00	3.03
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	2.47	0.00	1.58	3.88
	H0-2915	Saturated acyclic monocarboxylic acids and their a	3.17	0.00	6.50	4.00
	H0-2922	Oxygen-function amino-compounds.	14.28	0.00	6.50	3.40
	H0-2935	Sulphonamides.	6.46	0.00	6.50	3.39
	H0-2936	Provitamins and vitamins, natural or reproduced by	2.43	0.00	0.00	2.49
	H0-2937	Hormones, prostaglandins, thromboxanes and leukotr	2.07	0.00	2.00	2.78
	H0-3001	Glands and other organs for organo-therapeutic use	7.53	0.00	0.00	2.61
	H0-8405	Producer gas or water gas generators, with or with	2.21	0.00	10.00	3.70
	H0-8431	Parts suitable for use solely or principally with	2.70	0.00	1.25	4.26
	H0-8443	Printing machinery used for printing by means of t	7.69	0.00	10.00	2.49
	H0-8452	Sewing machines, other than book-sewing machines o	3.41	0.00	10.00	4.51
	H0-8482	Ball or roller bearings.	2.19	0.00	10.00	4.19
	H0-8485	Machinery parts, not containing electrical connect	4.69	0.00	..	6.12

			RCA	Simple average tariffs		MFN rate for developing countries
				MFN rate	Bound rate	
South Africa	H0-1102	Cereal flours other than of wheat or meslin.	2.10	5.75	63.00	13.04
	H0-2204	Wine of fresh grapes, including fortified wines g	4.99	25.00	88.63	32.38
	H0-2207	Undenatured ethyl alcohol of an alcoholic strength	4.67		597.00	21.02
	H0-2802	Sulphur, sublimed or precipitated colloidal sulph	17.27	0.00	10.00	3.42
	H0-2804	Hydrogen, rare gases and other non-metals.	2.44	0.00	10.00	4.25
	H0-2806	Hydrogen chloride (hydrochloric acid) chlorosulph	3.40	5.00	10.00	5.30
	H0-2807	Sulphuric acid oleum.	6.00	0.00	0.00	6.08
	H0-2809	Diphosphorus pentaoxide phosphoric acid polyphos	16.95	0.00	10.00	4.12
	H0-2812	Halides and halide oxides of non-metals.	2.33	0.00	10.00	3.19
	H0-2819	Chromium oxides and hydroxides.	17.26	0.00	10.00	3.50
	H0-2820	Manganese oxides.	41.55	0.00	0.00	3.60
	H0-2823	Titanium oxides.	16.89	10.00	10.00	4.28
	H0-2825	Hydrazine and hydroxylamine and their inorganic sa	5.27	0.00	10.00	3.20
	H0-2828	Hypochlorites commercial calcium hypochlorite ch	2.33	5.00	10.00	5.86
	H0-2833	Sulphates alums peroxosulphates (persulphates).	3.68	0.00	10.00	4.52
	H0-2841	Salts of oxometallic or peroxometallic acids.	8.98	0.00	10.00	3.79
	H0-2844	Radioactive chemical elements and radioactive isot	2.23	0.00	0.00	2.95
	H0-2849	Carbides, whether or not chemically defined.	4.89	3.33	10.00	4.49
	H0-2850	Hydrides, nitrides, azides, silicides and borides,	35.29	0.00	10.00	3.44
	H0-2901	Acyclic hydrocarbons.	3.26	0.00	2.50	2.74
	H0-2905	Acyclic alcohols and their halogenated, sulphonate	2.04	2.25	13.88	3.88
	H0-2914	Ketones and quinones, whether or not with other ox	6.96	1.33	15.00	3.36
	H0-2916	Unsaturated acyclic monocarboxylic acids, cyclic m	3.48	0.00	14.62	3.10
	H0-4702	Chemical wood pulp, dissolving grades.	43.69	0.00	5.00	2.34
	H0-8421	Centrifuges, including centrifugal dryers filteri	15.97	3.98	16.64	6.49
	H0-8474	Machinery for sorting, screening, separating, wash	3.33	0.00	1.43	3.49
	H0-8478	Machinery for preparing or making up tobacco, not	2.28	0.00	10.00	2.78

			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Sweden	H0-2206	Other fermented beverages (for example, cider, per	4.78	..	..	23.92
	H0-2208	Undenatured ethyl alcohol of an alcoholic strength	2.70	0.00	0.00	17.95
	H0-2847	Hydrogen peroxide, whether or not solidified with	6.84	5.50	5.50	2.88
	H0-2849	Carbides, whether or not chemically defined.	2.89	5.37	5.37	2.11
	H0-2937	Hormones, prostaglandins, thromboxanes and leukotr	4.35	0.00	1.29	0.14
	H0-3001	Glands and other organs for organo-therapeutic use	2.28	0.00	0.00	0.00
	H0-3003	Medicaments (excluding goods of heading 30.02, 30.	4.49	0.00	0.00	0.75
	H0-3004	Medicaments (excluding goods of heading 30.02, 30.	2.09	0.00	0.00	0.72
	H0-4701	Mechanical wood pulp.	12.59	0.00	0.00	1.25
	H0-4702	Chemical wood pulp, dissolving grades.	8.02	0.00	0.00	1.25
	H0-4703	Chemical wood pulp, soda or sulphate, other than d	6.49	0.00	0.00	1.25
	H0-4705	Wood pulp obtained by a combination of mechanical	6.75	0.00	0.00	1.25
	H0-8401	Nuclear reactors fuel elements (cartridges), non-	16.84	4.20	4.20	1.94
	H0-8405	Producer gas or water gas generators, with or with	4.16	1.70	1.70	2.41
	H0-8406	Steam turbines and other vapour turbines.	1.95	2.70	2.70	2.22
	H0-8408	Compression-ignition internal combustion piston en	3.57	2.57	3.08	2.83
	H0-8412	Other engines and motors.	3.49	1.67	2.05	2.48
	H0-8419	Machinery, plant or laboratory equipment, whether	3.89	1.54	1.66	3.35
	H0-8422	Dish washing machines machinery for cleaning or d	2.95	1.87	2.22	3.57
	H0-8426	Ships' derricks cranes, including cable cranes m	2.29	0.00	0.00	2.04
	H0-8427	Fork-lift trucks other works trucks fitted with l	5.02	4.33	4.33	3.32
	H0-8428	Other lifting, handling, loading or unloading mach	2.76	0.00	0.00	1.91
	H0-8430	Other moving, grading, levelling, scraping, excava	4.85	0.00	0.00	2.53
	H0-8432	Agricultural, horticultural or forestry machinery	2.93	0.00	0.00	1.21
	H0-8434	Milking machines and dairy machinery.	3.59	0.00	0.00	1.90
	H0-8436	Other agricultural, horticultural, forestry, poult	2.35	1.70	1.70	2.66
	H0-8439	Machinery for making pulp of fibrous cellulosic ma	7.59	1.70	1.70	2.94
	H0-8452	Sewing machines, other than book-sewing machines o	1.97	3.64	3.64	2.58
	H0-8455	Metal-rolling mills and rolls therefor.	2.05	2.70	2.70	1.97
	H0-8466	Parts and accessories suitable for use solely or p	2.30	1.20	1.00	2.62
	H0-8467	Tools for working in the hand, pneumatic, hydrauli	4.07	2.00	2.10	2.70
	H0-8472	Other office machines (for example, hectograph or	2.36	1.89	1.96	2.33
	H0-8474	Machinery for sorting, screening, separating, wash	2.08	0.00	0.00	2.51
	H0-8475	Machines for assembling electric or electronic lam	5.63	1.70	1.70	2.54
	H0-8482	Ball or roller bearings.	2.91	7.98	8.00	2.79

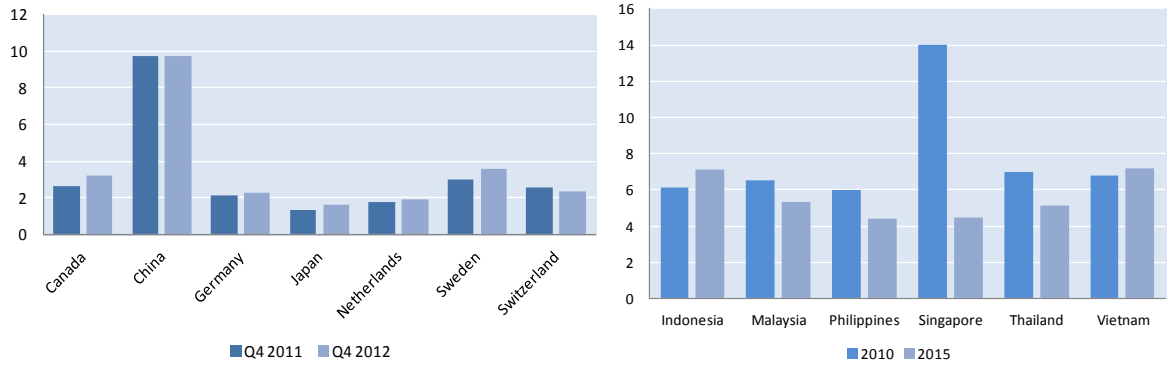
			RCA	Simple average tariffs		MFN rate for high income countries
				MFN rate	Bound rate	
Switzerland	H0-2202	Waters, including mineral waters and aerated water	4.60	..	..	5.92
	H0-2843	Colloidal precious metals inorganic or organic co	6.26	0.00	0.00	2.29
	H0-2845	Isotopes other than those of heading 28.44 compou	1.93	0.00	0.00	1.35
	H0-2908	Halogenated, sulphonated, nitrated or nitrosated d	3.28	0.00	0.00	2.16
	H0-2911	Acetals and hemiacetals, whether or not with other	4.41	0.00	0.00	2.20
	H0-2912	Aldehydes, whether or not with other oxygen functi	3.83	0.00	0.00	2.29
	H0-2913	Halogenated, sulphonated, nitrated or nitrosated d	7.38	0.00	..	2.53
	H0-2914	Ketones and quinones, whether or not with other ox	3.31	0.00	0.00	2.23
	H0-2918	Carboxylic acids with additional oxygen function a	4.53	0.00	0.00	2.49
	H0-2920	Esters of other inorganic acids of non-metals (exc	2.48	0.00	0.00	2.54
	H0-2921	Amine-function compounds.	3.22	0.00	0.00	2.31
	H0-2922	Oxygen-function amino-compounds.	3.61	0.00	0.00	2.32
	H0-2923	Quaternary ammonium salts and hydroxides lecithin	3.20	0.00	0.00	2.40
	H0-2924	Carboxyamide-function compounds amide-function co	20.52	0.00	0.00	2.30
	H0-2925	Carboxyimide-function compounds (including sacchar	3.26	0.00	0.00	2.31
	H0-2926	Nitrile-function compounds.	3.17	0.00	0.00	2.29
	H0-2928	Organic derivatives of hydrazine or of hydroxylami	24.34	0.00	0.00	2.13
	H0-2930	Organo-sulphur compounds.	2.78	0.00	0.00	2.16
	H0-2932	Heterocyclic compounds with oxygen hetero-atom(s)	9.61	0.00	0.00	2.51
	H0-2933	Heterocyclic compounds with nitrogen hetero-atom(s	5.93	0.00	0.00	2.19
	H0-2934	Nucleic acids and their salts, whether or not chem	4.28	0.00	0.00	2.23
	H0-2935	Sulphonamides.	3.62	0.00	0.00	2.74
	H0-2936	Provitamins and vitamins, natural or reproduced by	9.38	0.00	0.00	0.30
	H0-2937	Hormones, prostaglandins, thromboxanes and leukotr	12.40	0.00	0.00	0.14
	H0-2938	Glycosides, natural or reproduced by synthesis, an	5.94	0.00	0.00	1.83
	H0-2939	Vegetable alkaloids, natural or reproduced by synt	5.67	0.00	0.00	0.01
	H0-2940	Sugars, chemically pure, other than sucrose, lacto	2.01	0.00	0.00	2.45
	H0-2941	Antibiotics.	10.07	0.00	0.00	0.32
	H0-3002	Human blood animal blood prepared for therapeutic	15.07	0.00	0.00	0.09
	H0-3003	Medicaments (excluding goods of heading 30.02, 30.	4.12	0.00	0.00	0.75
	H0-3004	Medicaments (excluding goods of heading 30.02, 30.	6.12	0.00	0.00	0.72
	H0-3006	Pharmaceutical goods specified in Note 4 to this C	4.29	0.00	0.00	1.25
	H0-3301	Essential oils (terpeneless or not), including con	2.03	..	..	2.26
	H0-3302	Mixtures of odoriferous substances and mixtures (i	7.14	..	..	3.11
	H0-4702	Chemical wood pulp, dissolving grades.	4.02	..	..	1.25
	H0-4911	Other printed matter, including printed pictures a	1.90	0.00	0.00	1.88
	H0-8410	Hydraulic turbines, water wheels, and regulators t	5.84	..	..	2.58
	H0-8419	Machinery, plant or laboratory equipment, whether	2.82	0.00	0.00	3.35
	H0-8420	Calendering or other rolling machines, other than	2.08	..	..	2.57
	H0-8422	Dish washing machines machinery for cleaning or d	2.20	..	..	3.57
	H0-8423	Weighing machinery (excluding balances of a se	3.95	..	..	3.76
	H0-8435	Presses, crushers and similar machinery used in th	6.57	..	..	2.39
	H0-8437	Machines for cleaning, sorting or grading seed, gr	12.39	..	..	2.79
	H0-8438	Machinery, not specified or included elsewhere in	2.86	..	..	3.08
	H0-8439	Machinery for making pulp of fibrous cellulosic ma	2.14	..	..	2.94
	H0-8440	Book-binding machinery, including book-sewing mach	15.32	..	..	2.68
	H0-8441	Other machinery for making up paper pulp, paper or	6.41	..	..	2.77
	H0-8442	Machinery, apparatus and equipment (other than the	7.36	..	..	2.58
	H0-8444	Machines for extruding, drawing, texturing or cutt	3.93	..	..	2.24
	H0-8445	Machines for preparing textile fibres spinning, d	8.11	..	..	2.30
	H0-8446	Weaving machines (looms).	7.80	..	..	2.51
	H0-8447	Knitting machines, stitch-bonding machines and mac	3.50	..	..	2.53
	H0-8448	Auxiliary machinery for use with machines of headi	10.72	..	..	2.10
	H0-8451	Machinery (other than machines of heading 84.50) f	2.69	..	..	4.12
	H0-8454	Converters, ladles, ingot moulds and casting machi	3.52	..	..	2.56
	H0-8456	Machine-tools for working any material by removal	17.56	..	0.00	3.56
	H0-8457	Machining centres, unit construction machines (sin	3.30	..	..	3.65
	H0-8458	Lathes (including turning centres) for removing me	2.63	..	..	3.72
	H0-8459	Machine-tools (including way-type unit head machin	2.30	..	..	3.47
	H0-8460	Machine-tools for deburring, sharpening, grinding,	11.45	..	..	3.31
	H0-8461	Machine-tools for planing, shaping, slotting, broa	5.03	..	..	3.07
	H0-8462	Machine-tools (including presses) for working meta	2.66	..	..	3.49
	H0-8463	Other machine-tools for working metal or cermets,	5.08	..	..	3.30
	H0-8464	Machine-tools for working stone, ceramics, concret	10.31	0.00	0.00	3.19
	H0-8466	Parts and accessories suitable for use solely or p	5.65	..	0.00	2.62
	H0-8476	Automatic goods-vending machines (for example, pos	2.49	..	..	3.98
	H0-8477	Machinery for working rubber or plastics or for th	2.72	..	0.00	3.58
	H0-8480	Moulding boxes for metal foundry mould bases mou	2.20	..	0.00	2.97

Source: UN TRAINS database.

Figure A.1. Real GDP growth, projections

Per cent change from previous period

Panel A. Surplus economies and select Asian countries



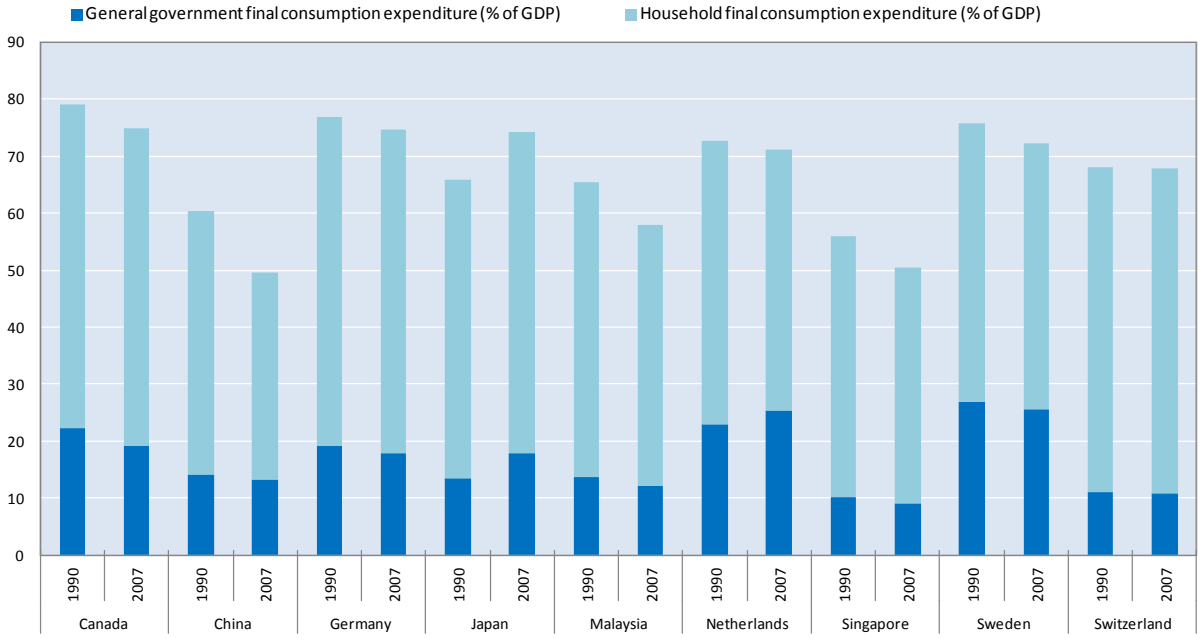
Panel B. Deficit economies

Source: *2010 OECD Economic Outlook* for projections in 2011 and 2012; *2010 OECD Southeast Asian Outlook* for projections in 2010 and 2015.

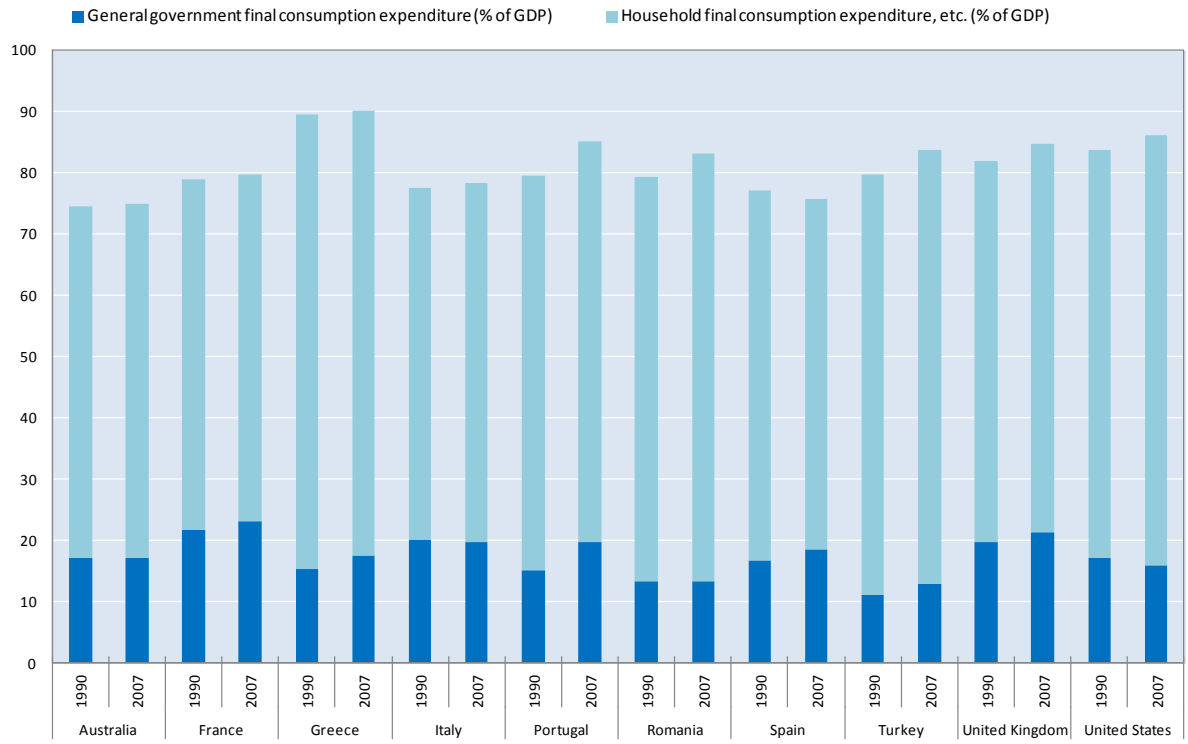
Figure A.2. Consumption

As a share of GDP

Panel A. Surplus economies



Panel B. Deficit economies



Source: World Bank Development Indicators.

Annex II

Technical Annex

The standard GTAP model is a widely-used and well-documented multi-sector, multi-country general equilibrium model of the world economy (*www.gtap.agecon.purdue.edu/models/current.asp*). Some key features of the model used in the current study include:

- global coverage of trade and production, including imported and domestically sourced intermediate inputs;
- a comparative-static character, where the stocks of primary factors of production (including capital base) are held constant;
- four factors of production (land, capital, unskilled labour and skilled labour), which are mobile across the sectors[1] but not across countries;
- constant returns to scale in production in all sectors;
- an investment module that does not change the capital stock (static model), but affects production and trade through its effect on the profile of final demand; and
- alternative assumptions regarding labour market structure (full employment versus sticky wages with unemployment) in certain regions.

Macroeconomic closure of the model and determination of the current account

GTAP is a comparative static model with an elaborate demand and supply system representing the real economy, but it does not incorporate money markets. Its static nature means that capital stocks are not updated as a result of shocks. Yet, there is an investment module in the model whereby world savings and investments are mediated by a "global bank." Investments destined for each of the regions are sourced from the global bank, which collects all regional savings and then redistributes them across regions so as to equalize the expected regional rates of return on capital. While this cross-regional reallocation of investment does not affect the capital stock available for production in a given region, it does affect production and trade through its effect on the profile of final demand (Hertel *et al.*, 1997). This makes the modelling framework particularly suitable for simulations of trade policy shocks on medium-term patterns of global production, especially if it is borne in mind that the representation of investment does not include the impact on investment of macroeconomic policies. The results of this model can thus be treated as complementary to the results obtained from models focusing on macroeconomic policies.

The national savings identity (1) reproduced below is one of the key relationships underpinning the model and both the national savings side and the trade balance side of

1. Land is specific to the agricultural sector.

the identity are jointly determined within the model (i.e. endogenous). This means that any shock that would affect the savings-investment side of the identity has its mirror image in the trade balance. Vice versa, any shock that affects the trade balance has its mirror image in the savings-investment side of the identity. The equilibrating mechanisms that underpin this identity are changes in a wide range of endogenous variables, most notably changes in prices of primary factors of production (e.g. capital and labour) and a whole range of relative prices such as prices of imports relative to prices of domestic products as well as relative prices of intermediate and final products imported from different countries. Importantly, these price adjustments to policy shocks depend crucially on the actual structures of economies in the assumed baseline[2] and various elasticities and parameters of the model.

$$(S - I) + (T - G) = X - M = TB \tag{1}$$

Thus, in the adopted modelling framework, trade policies affect the current account balance through their parallel impact on exports and imports as well as savings and investment. To understand how this happens it is useful to consider separately each of the elements of the national savings-investment-trade balance identity. Beginning with exports (X), any change in the level and composition of exports depends on export prices (which in turn depend on prices of primary factors of production as well as domestic and imported intermediate inputs in the exporting economies). Changes in imports (M) are driven by changes in income and import prices, relative to prices of domestic products and distinguished by source country.

Switching to the left-hand-side of the national savings-investment identity, savings (S) are normally assumed to be a fixed share of regional income[3] and changes in savings will thus crucially depend on whether the considered policy experiment affects incomes. Investment (I) is sourced from the global bank and allocated among the regions so as to equate the expected rates of return on capital. Expected rates of return on capital depend on the current rates of return (Equation 2 below) and on the additions to the capital stock made by investors. The investors are motivated by the expected rates of return but they expect the region's rate of return to decline with positive additions to the capital stock (Equation 3). The rate of this decline is a function of flexibility parameter *ROREFLEX* (Hertel *et al.*, 1997), which is called "investment flexibility parameter" in the main body of the paper.

$$RORC = \frac{RENTAL}{PCGDS} - DEPR \tag{2}$$

$$RORE = RORC[KE/KB]^{-RORFLEX} \tag{3}$$

2. For example, the fact that the share of services trade in world trade is small in the baseline determines the small impacts associated with policy shocks implemented in this sector.

3. This is true unless one considers a policy experiment that involves an increase in consumption that is sourced entirely from savings, as is done in scenarios 1-3 in the current paper. This requires an appropriate closure change in the model.

Where:

RORC is the current rate of return on capital

RENTAL is the rental for capital services

PCGDS is the price of capital goods

DEPR is the depreciation rate

RORE is the expected rate of return on capital

KE is the end-of-period capital stock

KB is the beginning of the period capital stock

RORFLEX is the flexibility parameter

Thus, how much is invested in each region depends on the actual returns to capital, prices of capital goods in each region and the "sensitivity" of rates of return to investment captured by the *ROREFLEX* parameter. Namely, the elasticity of the expected rate of return (*RORE*) with respect to the end-of-period capital stock *(KE)* is equal to minus *ROREFLEX*. Thus, the impact on regional investment of a policy shock depends on *ROREFLEX* more than on any other single parameter in the model. As Hertel *et al.* (1997) point out, *RORFLEX*=0.5, for example, implies that 1% increase in end-of-period capital is expected to reduce the rate of return on capital by 0.5%, which is a relatively small change. In such a case, the supply of investment is very sensitive to the expected rate of return, generating larger changes in regional investment to equalize expected rates of return as a result of a policy shock.

The choice of the *ROREFLEX* parameter is thus crucial for any study of trade balances in this or related modelling frameworks. Setting a high or a low value of this parameter reflects whether the modeller believes that the experiment under consideration will, or will not, have a great impact on regional investment. In the current context, setting a very high value for this parameter would be equal to assuming that investment is not related to considered policy changes. For example, one would have to assume that trade liberalisation that results in cheaper access to imported intermediate inputs and pushes up capital rental rates would not trigger additional investment. Such an assumption is clearly not realistic. It is equally unrealistic to set a very low value of this parameter since this may generate very large investment flows that can dwarf all other changes in the model. Hence, care must be taken to compare simulation results across models with different values of investment flexibility parameter. Our scenarios experiment with two values of this parameter (5 and 15)[4] and compare the results from these experiments across all the considered rebalancing scenarios.

4. These are +/-50% deviations from the GTAP database default value of 10.

Table A2.1. List of considered scenarios

	Scenario No.	
Consumption scenarios	1	10 % decrease in in private consumption spending in the US
	2	10% increase in private consumption spedning in China
	3	10% decrease in in private consumption spending in the US and 10% increase in private consumption spending in China combined
Multilateral trade scenarios	4	100% liberalisation of remaining tariffs across all regions and all sectors
	5	30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Mode 1 and 2)
	6	100% liberalisation of remaining tariffs across all regions in agriculture and processed food
	7	100% liberalisation of remaining tariffs across all regions in all manufacturing sectors
	8	100% liberalisation of remaining tariffs across all regions in the chemicals sector
	9	100% liberalisation of remaining tariffs across all regions in the motor vehicles sector
	10	100% liberalisation of remaining tariffs across all regions in the machinery sector
	11	30% decrease in the cost of producing and delivering to the foreign market across in retail trade (Mode 1 and 2)
	12	30% decrease in the cost of producing and delivering to the foreign market across in financial services and insurance (Mode 1 and 2)
	13	30% decrease in the cost of producing and delivering to the foreign market across in business services (Mode 1 and 2)
Unilateral trade scenarios by China and ASEAN	14	100% liberalisation of remaining tariffs across all sectors (unilateral China + ASEAN)
	15	30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Mode 1 and 2) (unilateral China + ASEAN)
	16	100% liberalisation of remaining tariffs in agriculture and processed food (China + ASEAN)
	17	100% liberalisation of remaining tariffs in all manufacturing sectors (China + ASEAN)
	18	100% liberalisation of remaining tariffs in the chemicals sector (China + ASEAN)
	19	100% liberalisation of remaining tariffs in the motor vehicles sector (China + ASEAN)
	20	100% liberalisation of remaining tariffs in the machinery sector (China + ASEAN)
	21	30% decrease in the cost of producing and delivering to the foreign market in retail trade (Mode 1 and 2) (China + ASEAN)
	22	30% decrease in the cost of producing and delivering to the foreign market in financial services and insurance (Mode 1 and 2) (China + ASEAN)
	23	30% decrease in the cost of producing and delivering to the foreign market in business services (Mode 1 and 2) (China + ASEAN)
Scenarios with unemployment	24	10% decrease in in private consumption spending in the US and 10% increase in private consumption spending in China combined
	25	100% liberalisation of remaining tariffs across all regions and all sectors
	26	100% liberalisation of remaining tariffs across all regions and all sectors100% liberalisation of remaining tariffs combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Mode 1 and 2)
	27	100% liberalisation of remaining tariffs across all sectors (unilateral China + ASEAN)
	28	100% liberalisation of remaining tariffs across all sectors combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Mode 1 and 2) (China + ASEAN)

Table A2.2. Results obtained from CGE studies of trade liberalisation

Study	Model and database	Liberalisation scenario	Notes	Global welfare gains, USD billion		
				Agriculture	Other	Total
Decreux and Fontagné (2009)	MIRAGE GTAP database 2004 base year	July 2008 drafts circulated by the WTO involving liberalisation of goods and services trade and a trade facilitation scenario	Dynamic, imperfect competition in some sectors	n/a	n/a	57
Decreux and Fontagné (2008)	MIRAGE GTAP database 2004 base year	May 2008 drafts circulated by the WTO	Dynamic, imperfect competition in some sectors	n/a	n/a	43
OECD (2006)	GTAPEM GTAP database 2001 base year	50% cut in domestic agricultural support and 50% cut in applied tariffs - all sectors and regions		26	18	44
Kowalski & Shepherd (2006)	GTAP GTAP database 2001 base year	Elimination of tariffs, all sectors, all regions		35	33	68
Polaski (2006)	Carnegie Model [Wang (2003)], GTAP database 2001 base year	Reduction of tariffs and subsidies in agriculture and tariffs in manufacturing	Perfect competition with a particular treatment of clearing in labor market	n/a	n/a	168
Bouet *et al.* (2005)	MIRAGE GTAP database 1997 base year	Provisions included WTO draft compromise proposal of March 2003	Dynamic, imperfect competition in some sectors	29	n/a	n/a
Anderson, *et al.* (2005)	LINKAGE, dynamic GTAP database 2001 base year data	Elimination of domestic agricultural support and trade protection in all sectors	Dynamic version	173	105	278
Beghin *et al*. (2002)	LINKAGE, dynamic GTAP database 1997 base year data	Elimination of agriculture support and protection in high-income OECD countries		108	n/a	n/a
François *et al*. (2005)	GTAP 1997 base year data	Elimination of tariffs, all sectors, all regions	increasing returns to scale, med. Run increasing returns to scale, long run	109	107	*367.1 *670.0
Hertel and Keeney (2005)	GTAP 2001 base year data	Elimination of domestic agricultural support and tariffs - all sectors and regions		56	28	84
OECD (2003)	GTAP 1997 base year data	Elimination of tariff protection, all sectors		34	63	**174
Tokarick (2005)	GTAP 1997 base year data	Elimination of domestic agricultural support and trade protection		128	n/a	n/a
UNCTAD (2003)	GTAP 1997 base year data	50% cut in applied agricultural tariffs	Incorporates tariff preferences	20	n/a	n/a
USDA (2001)	CGE, dynamic	Elimination of domestic agricultural support and tariffs, all sectors	Static version Dynamic, productivity gains	31 56	n/a n/a	n/a n/a
World Bank (2003)	LINKAGE, dynamic 1997 base year data	Near 100% reduction in domestic agricultural support and applied tariffs	Static version Dynamic version	193 358	98 156	291 518

Notes: * Includes gains from services liberalisation.
** Includes gains from trade facilitation.

Source: Kowalski (2009) and OECD (2010a).

Annex III

Modelling Results

Table A3.1. Scenario 1: 10% consumption decrease in the United States

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.9	-7.4	-2.2	7.5	12.2	-1.5	3.4	0.0	-2.8	2.9	1.6
New Zealand and rest of Oceania	1.4	-1.2	-2.0	0.2	6.4	16.5	-1.6	3.1	0.0	-2.6	2.4	1.3
Rest of World	-7.0	-0.6	-6.2	-7.7	6.2	7.5	0.1	2.3	0.0	-1.1	1.1	1.5
China	12.5	-1.4	-41.8	11.2	2.1	7.0	-2.1	2.2	0.0	-3.2	1.5	1.2
ASEAN plus	13.4	-1.2	-12.7	12.2	2.9	14.1	0.0	1.9	0.0	-0.8	1.4	1.0
Japan	3.0	-1.2	-53.0	1.8	9.9	26.1	-4.0	3.7	0.0	-5.5	3.4	1.8
Korea	5.0	-1.3	-12.6	3.7	5.9	14.9	-1.5	2.1	0.0	-2.7	1.7	1.7
Developing Asia	0.1	-1.4	-8.8	-1.3	5.0	13.5	-1.3	2.0	0.0	-2.2	1.1	1.0
Indonesia	3.7	-0.8	-3.3	2.9	4.5	10.2	-0.9	2.3	0.0	-1.9	1.5	1.1
India	-4.2	-0.8	-10.8	-5.1	4.9	7.3	-2.2	3.5	0.1	-3.6	2.8	1.6
Canada	-0.5	-1.3	-19.0	-1.8	6.5	16.0	-2.2	2.8	0.1	-2.5	4.6	1.1
United States	-5.1	3.5	490.9	-1.7	79.2	-2.3	24.9	-8.8	-0.2	29.8	-9.8	-4.7
Mexico	2.5	-1.8	-18.1	0.7	6.2	20.3	-4.4	3.0	-0.1	-4.9	4.5	1.6
Developing Latin America	-1.0	-1.0	-12.7	-2.1	9.1	17.2	-1.5	3.0	0.1	-2.4	2.9	1.3
Argentina	5.6	-1.1	-2.7	4.5	6.6	16.3	-1.7	3.8	0.1	-2.8	2.9	1.6
Brazil	2.5	-1.4	-18.4	1.1	21.6	52.9	-6.0	7.0	0.1	-7.9	6.6	2.7
Rest of Europe	-0.9	-1.2	-74.9	-2.1	8.9	17.2	-0.7	2.3	-0.1	-2.3	1.2	1.8
France	-1.2	-1.1	-29.8	-2.3	14.1	23.2	-2.7	2.3	-0.1	-4.5	1.2	2.2
Germany	7.8	-1.4	-44.8	6.4	8.4	46.2	-0.9	3.3	-0.1	-2.3	2.2	1.7
Italy	0.5	-1.3	-28.0	-0.8	13.0	27.5	-2.7	2.7	-0.1	-4.5	1.5	2.1
United Kingdom	-4.0	-1.0	-30.1	-5.0	24.2	25.4	-1.5	3.2	-0.1	-2.9	2.4	1.7
EFTA	6.7	-1.3	-10.6	5.3	6.3	20.8	-0.8	2.7	0.0	-2.1	1.7	1.6
Russian Federation	-0.7	-0.2	-3.1	-0.9	4.3	5.3	0.6	1.8	0.0	-0.5	0.7	1.3
North Africa and Middle East	-4.1	-1.4	-23.6	-5.5	7.3	13.5	-0.9	3.2	0.0	-2.1	2.5	1.6
Turkey	-4.7	-0.7	-5.1	-5.4	23.0	20.1	-0.1	3.4	0.0	-1.6	2.3	1.7
Developing Sub-Saharan Africa	-5.1	-1.1	-7.4	-6.3	35.8	28.4	-0.3	3.8	0.1	-1.4	2.8	1.3
South Africa	0.7	-1.4	-4.0	-0.7	14.0	33.2	-0.8	4.2	0.1	-2.2	3.3	1.6

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	3.4%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.1%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.2. Scenario 2: 10% consumption increase in China

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.2	1.3	-1.2	-0.5	-1.4	0.5	-0.4	0.0	0.5	-0.5	-0.1
New Zealand and rest of Oceania	1.4	0.2	0.3	1.6	-0.2	-1.9	0.5	-0.3	0.0	0.5	-0.3	0.0
Rest of World	-7.0	0.1	1.0	-6.9	-0.5	-0.8	0.2	-0.2	0.0	0.3	-0.2	-0.1
China	12.5	-2.6	-83.4	9.9	-5.2	0.6	-5.6	2.2	0.0	-6.6	2.2	1.5
ASEAN plus	13.4	0.2	2.6	13.7	0.1	-1.5	0.2	-0.1	0.0	0.2	-0.2	0.1
Japan	3.0	0.2	8.8	3.2	-0.9	-3.3	0.7	-0.5	0.0	0.8	-0.7	-0.2
Korea	5.0	0.2	2.1	5.2	-0.4	-1.8	0.4	-0.1	0.0	0.5	-0.3	-0.1
Developing Asia	0.1	0.2	1.5	0.4	-0.4	-1.9	0.4	-0.2	0.0	0.4	-0.3	-0.1
Indonesia	3.7	0.2	0.8	3.8	-0.1	-1.2	0.5	-0.2	0.0	0.5	-0.3	0.0
India	-4.2	0.1	1.8	-4.1	-0.3	-0.8	0.6	-0.4	0.0	0.7	-0.4	-0.1
Canada	-0.5	0.1	2.0	-0.4	-0.5	-1.5	0.3	-0.2	0.0	0.4	-0.2	-0.1
United States	-5.1	0.1	14.3	-5.0	-2.0	-2.0	0.4	-0.5	0.0	0.5	-0.6	-0.1
Mexico	2.5	0.2	1.6	2.6	-0.5	-1.7	0.5	-0.1	0.0	0.6	-0.1	-0.1
Developing Latin America	-1.0	0.1	1.8	-0.9	-0.7	-1.8	0.4	-0.3	0.0	0.4	-0.3	-0.1
Argentina	5.6	0.2	0.5	5.8	-0.5	-2.0	0.5	-0.4	0.0	0.5	-0.4	-0.1
Brazil	2.5	0.2	2.5	2.7	-2.0	-5.8	1.0	-0.7	0.0	1.1	-0.7	-0.3
Rest of Europe	-0.9	0.2	11.2	-0.7	-0.7	-2.0	0.3	-0.2	0.0	0.4	-0.2	-0.1
France	-1.2	0.2	4.4	-1.0	-1.2	-2.7	0.5	-0.2	0.0	0.7	-0.2	-0.2
Germany	7.8	0.2	7.3	8.1	-0.7	-5.8	0.3	-0.4	0.0	0.4	-0.3	-0.1
Italy	0.5	0.2	4.3	0.7	-1.0	-3.2	0.6	-0.3	0.0	0.7	-0.3	-0.2
United Kingdom	-4.0	0.2	4.5	-3.9	-2.3	-3.1	0.4	-0.4	0.0	0.5	-0.4	-0.2
EFTA	6.7	0.2	1.5	6.8	-0.4	-2.2	0.3	-0.2	0.0	0.4	-0.1	-0.1
Russian Federation	-0.7	0.1	1.0	-0.6	-0.2	-0.6	0.2	-0.2	0.0	0.2	-0.3	-0.1
North Africa and Middle East	-4.1	0.2	3.4	-3.9	-0.6	-1.6	0.3	-0.3	0.0	0.4	-0.3	-0.1
Turkey	-4.7	0.1	0.9	-4.6	-1.8	-2.3	0.3	-0.3	0.0	0.4	-0.3	-0.1
Developing Sub-Saharan Africa	-5.1	0.2	1.3	-4.9	-3.2	-3.8	0.3	-0.4	0.0	0.4	-0.5	-0.1
South Africa	0.7	0.2	0.6	0.9	-1.0	-3.9	0.3	-0.4	0.0	0.4	-0.5	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.1%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.3%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.3. Scenario 3: 10% consumption decrease in the United States combined with 10% consumption increase in China

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.7	-6.1	-2.0	6.9	10.8	-1.0	3.0	0.0	-2.3	2.4	1.5
New Zealand and rest of Oceania	1.4	-1.0	-1.7	0.4	6.1	14.6	-1.1	2.8	0.0	-2.1	2.1	1.2
Rest of World	-7.0	-0.5	-5.2	-7.6	5.8	6.7	0.4	2.1	0.0	-0.9	0.9	1.4
China	12.5	-3.9	-125.3	8.6	-3.1	7.6	-7.7	4.4	0.0	-9.7	3.7	2.7
ASEAN plus	13.4	-1.0	-10.1	12.4	3.1	12.6	0.3	1.8	0.0	-0.6	1.2	1.0
Japan	3.0	-1.0	-44.2	2.0	9.0	22.7	-3.3	3.2	0.0	-4.7	2.6	1.6
Korea	5.0	-1.1	-10.5	3.9	5.4	13.1	-1.0	2.0	0.0	-2.2	1.4	1.6
Developing Asia	0.1	-1.2	-7.3	-1.0	4.5	11.6	-0.9	1.8	0.0	-1.9	0.8	1.0
Indonesia	3.7	-0.6	-2.5	3.0	4.4	9.0	-0.4	2.1	0.0	-1.4	1.2	1.1
India	-4.2	-0.7	-9.0	-4.9	4.6	6.5	-1.6	3.1	0.0	-3.0	2.4	1.5
Canada	-0.5	-1.2	-17.0	-1.7	6.1	14.5	-1.9	2.6	0.1	-2.2	4.3	1.0
United States	-5.1	3.6	504.9	-1.5	77.4	-4.2	25.4	-9.3	-0.2	30.3	-10.3	-4.8
Mexico	2.5	-1.6	-16.5	0.9	5.6	18.6	-3.9	2.8	-0.1	-4.4	4.4	1.5
Developing Latin America	-1.0	-0.9	-11.0	-1.9	8.4	15.3	-1.1	2.7	0.1	-2.0	2.7	1.2
Argentina	5.6	-0.9	-2.2	4.7	6.1	14.3	-1.2	3.4	0.1	-2.3	2.5	1.5
Brazil	2.5	-1.2	-15.8	1.3	19.4	46.7	-5.0	6.2	0.1	-6.8	5.8	2.5
Rest of Europe	-0.9	-1.0	-63.5	-1.9	8.1	15.2	-0.5	2.1	-0.1	-1.9	1.0	1.6
France	-1.2	-0.9	-25.4	-2.1	12.8	20.5	-2.2	2.0	-0.1	-3.8	1.0	2.0
Germany	7.8	-1.2	-37.4	6.6	7.7	40.3	-0.6	2.9	-0.1	-2.0	1.8	1.5
Italy	0.5	-1.1	-23.6	-0.6	11.9	24.1	-2.1	2.4	-0.1	-3.8	1.3	1.9
United Kingdom	-4.0	-0.8	-25.6	-4.9	21.8	22.2	-1.2	2.9	-0.1	-2.5	2.0	1.5
EFTA	6.7	-1.2	-9.0	5.5	5.8	18.5	-0.5	2.5	0.0	-1.8	1.5	1.5
Russian Federation	-0.7	-0.1	-2.1	-0.8	4.1	4.7	0.8	1.6	0.0	-0.3	0.4	1.2
North Africa and Middle East	-4.1	-1.2	-20.1	-5.3	6.7	11.9	-0.6	2.9	0.0	-1.8	2.2	1.4
Turkey	-4.7	-0.6	-4.3	-5.3	21.2	17.8	0.2	3.0	0.0	-1.2	1.9	1.5
Developing Sub-Saharan Africa	-5.1	-0.9	-6.1	-6.1	32.5	24.6	0.0	3.4	0.1	-1.1	2.4	1.2
South Africa	0.7	-1.2	-3.4	-0.5	12.9	29.3	-0.5	3.8	0.1	-1.8	2.8	1.5

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	3.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.0%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.4. Scenario 4: 100% liberalisation of remaining tariffs across all regions and all sectors

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.2	-2.1	-1.6	0.5	2.0	5.8	6.8	0.1	5.3	7.2	1.2
New Zealand and rest of Oceania	1.4	-1.7	-2.8	-0.3	4.0	17.7	8.8	16.1	0.4	5.7	16.3	5.0
Rest of World	-7.0	-0.6	-3.1	-7.7	-3.2	-0.8	8.8	8.1	0.4	11.0	9.3	-1.2
China	12.5	-0.3	-3.2	12.3	1.5	2.4	12.3	19.5	0.3	11.5	19.7	2.6
ASEAN plus	13.4	-0.7	-7.4	12.7	0.5	5.8	3.0	4.8	0.2	2.8	5.0	1.9
Japan	3.0	0.4	16.9	3.4	0.8	-3.1	9.3	8.6	0.1	8.5	8.9	1.2
Korea	5.0	-1.9	-18.9	3.1	4.3	16.5	7.6	14.5	0.9	5.9	14.7	5.1
Developing Asia	0.1	-6.1	-40.0	-6.0	4.5	42.7	10.5	25.2	1.2	9.1	25.5	9.1
Indonesia	3.7	0.2	1.2	3.8	2.0	0.8	10.0	10.4	0.2	8.5	10.6	2.8
India	-4.2	-1.3	-12.6	-5.5	-3.0	1.0	29.3	28.4	0.9	33.8	29.0	-0.9
Canada	-0.5	0.6	8.9	0.1	-2.5	-6.9	2.4	0.1	0.0	4.3	1.0	-2.0
United States	-5.1	0.5	78.8	-4.6	-1.6	-6.8	7.7	1.0	0.0	9.2	1.6	-1.4
Mexico	2.5	-0.8	-8.8	1.6	-1.5	4.6	1.6	5.6	0.3	3.7	6.3	-0.3
Developing Latin America	-1.0	-1.3	-15.4	-2.3	-0.8	9.9	8.5	13.4	0.3	9.0	14.0	1.1
Argentina	5.6	-0.7	-1.8	5.0	-0.4	4.3	1.5	6.1	0.3	1.2	6.0	0.5
Brazil	2.5	-2.8	-37.9	-0.3	6.0	54.6	2.0	32.6	0.3	-2.6	33.6	6.8
Rest of Europe	-0.9	0.5	33.5	-0.4	-1.5	-5.4	1.8	0.5	0.1	3.2	1.3	-1.2
France	-1.2	0.8	21.6	-0.3	-1.4	-9.0	4.0	0.3	0.1	5.4	1.3	-1.3
Germany	7.8	0.6	17.5	8.4	-0.8	-11.9	2.1	1.0	0.1	3.0	1.9	-0.7
Italy	0.5	0.7	15.6	1.2	-0.8	-8.6	5.0	2.0	0.2	6.0	2.9	-0.7
United Kingdom	-4.0	0.7	21.5	-3.3	-1.7	-10.0	4.3	0.4	0.2	5.8	1.2	-1.4
EFTA	6.7	0.2	1.4	6.9	-0.5	-2.3	3.3	3.4	0.3	4.1	4.4	0.1
Russian Federation	-0.7	-0.1	-1.5	-0.8	-4.3	-3.7	10.6	10.8	0.4	13.2	11.5	-2.6
North Africa and Middle East	-4.1	-2.2	-32.9	-6.3	-2.0	9.3	4.6	9.7	0.5	5.9	10.6	0.3
Turkey	-4.7	0.1	0.4	-4.6	0.8	-0.2	7.7	5.9	0.1	7.6	6.8	1.3
Developing Sub-Saharan Africa	-5.1	-4.3	-24.4	-9.4	-2.2	47.8	7.8	19.9	0.9	9.6	21.0	0.8
South Africa	0.7	-1.6	-4.4	-0.9	-2.2	17.6	5.2	10.8	0.3	7.1	11.6	-0.7

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.6%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.5. Scenario 5: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.2	1.7	-1.1	-0.3	-1.4	3.5	2.2	0.8	4.3	2.9	-0.3
New Zealand and rest of Oceania	1.4	-0.1	-0.2	1.3	0.7	1.7	3.0	3.6	1.5	3.5	4.4	0.6
Rest of World	-7.0	0.3	2.9	-6.7	-0.6	-1.8	2.6	1.1	0.8	3.6	1.8	-0.6
China	12.5	0.5	13.6	13.0	-0.4	-1.9	1.9	1.1	0.5	2.6	1.9	-0.5
ASEAN plus	13.4	-0.6	-4.3	12.9	1.8	6.4	1.1	2.0	2.2	1.6	2.8	1.6
Japan	3.0	0.0	-0.4	3.0	-0.2	-0.2	2.1	2.6	0.7	3.2	3.5	-0.3
Korea	5.0	0.1	1.4	5.1	0.2	-0.5	1.2	1.0	1.0	2.6	1.8	0.2
Developing Asia	0.1	-0.1	-0.4	0.0	0.7	1.1	1.7	1.9	1.3	2.1	2.6	0.6
Indonesia	3.7	0.0	0.0	3.7	0.2	0.2	1.4	1.6	1.0	1.9	2.3	0.1
India	-4.2	0.3	3.7	-3.9	0.1	-0.9	1.8	-0.4	0.4	2.3	0.5	0.2
Canada	-0.5	-0.1	-1.9	-0.6	0.2	1.1	2.1	2.6	1.0	2.9	3.4	0.1
United States	-5.1	0.1	23.4	-5.0	-0.4	-2.0	4.6	1.8	0.5	5.5	2.6	-0.4
Mexico	2.5	0.5	4.6	3.0	-0.7	-4.2	1.6	-0.2	0.5	2.4	0.6	-0.7
Developing Latin America	-1.0	0.2	2.6	-0.8	0.1	-1.7	2.4	1.4	0.8	3.1	2.3	0.1
Argentina	5.6	0.2	0.5	5.8	0.2	-1.0	1.7	1.2	0.6	2.2	2.2	0.2
Brazil	2.5	0.6	7.5	3.1	-1.3	-10.9	4.9	0.3	0.3	6.2	1.1	-1.2
Rest of Europe	-0.9	-0.6	-35.9	-1.5	1.3	5.5	2.3	3.7	2.0	2.8	4.3	1.1
France	-1.2	0.0	-0.3	-1.2	0.2	0.3	2.7	2.6	1.0	3.4	3.2	0.1
Germany	7.8	-0.4	-11.6	7.5	0.6	8.0	2.2	3.8	1.6	2.9	4.4	0.4
Italy	0.5	0.0	-0.2	0.5	0.2	0.3	2.7	2.8	1.1	3.4	3.5	0.1
United Kingdom	-4.0	-0.4	-11.8	-4.4	0.8	5.4	3.5	4.7	1.4	4.0	5.4	0.8
EFTA	6.7	-0.4	-3.4	6.2	0.9	4.9	1.4	2.8	1.6	2.2	3.5	0.7
Russian Federation	-0.7	0.3	3.7	-0.4	-1.0	-2.2	2.7	1.1	0.7	3.8	1.9	-1.1
North Africa and Middle East	-4.1	0.1	2.3	-4.0	0.0	-0.7	2.9	2.2	1.4	3.8	3.0	-0.1
Turkey	-4.7	0.3	2.3	-4.4	-0.1	-3.5	2.8	0.7	0.3	3.2	1.5	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	-0.2	-5.2	-0.1	0.4	2.3	2.0	1.2	3.1	2.8	-0.1
South Africa	0.7	0.2	0.6	0.9	-0.1	-3.0	1.8	1.1	0.6	2.5	1.8	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.6. Scenario 6: 100% liberalisation of remaining tariffs across all regions in agriculture and processed food

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.2	1.6	-1.1	-0.3	-1.4	0.6	-0.4	0.0	0.8	-0.3	-0.2
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	-0.4	-0.5	0.1	0.1	0.0	0.8	0.3	-0.3
Rest of World	-7.0	0.0	-0.3	-7.1	0.0	0.1	1.1	1.0	0.1	1.1	1.0	0.0
China	12.5	0.0	0.3	12.5	0.0	-0.1	0.5	0.8	0.0	0.6	0.9	0.0
ASEAN plus	13.4	-0.1	-1.3	13.3	-0.1	0.7	0.2	0.5	0.0	0.4	0.6	0.1
Japan	3.0	0.0	0.2	3.0	-0.1	-0.3	0.4	0.4	0.0	0.5	0.6	-0.1
Korea	5.0	-0.7	-6.9	4.3	0.7	4.8	-0.4	1.6	0.5	-0.5	1.7	0.3
Developing Asia	0.1	-0.4	-2.5	-0.3	0.3	2.7	0.9	1.9	0.1	1.0	2.1	0.8
Indonesia	3.7	0.2	1.0	3.9	-0.2	-1.7	1.2	0.3	0.0	1.4	0.5	-0.1
India	-4.2	-0.7	-8.0	-4.9	0.5	2.6	3.2	6.3	0.2	3.4	6.5	1.0
Canada	-0.5	0.1	1.1	-0.4	-0.1	-0.7	0.2	-0.2	0.0	0.3	-0.1	-0.1
United States	-5.1	0.0	7.2	-5.1	0.0	-0.6	0.8	0.1	0.0	0.8	0.3	0.0
Mexico	2.5	-0.1	-1.0	2.4	-0.1	0.5	-0.2	0.2	0.0	-0.1	0.2	-0.1
Developing Latin America	-1.0	0.1	1.4	-0.9	0.2	-0.8	2.3	1.7	0.0	2.2	1.7	0.4
Argentina	5.6	0.3	0.8	5.9	0.1	-1.9	1.1	-0.3	0.0	0.4	-0.5	0.2
Brazil	2.5	-0.2	-1.8	2.4	0.8	3.3	0.3	1.7	0.0	-0.7	1.8	0.9
Rest of Europe	-0.9	0.0	0.9	-0.9	-0.1	-0.2	0.3	0.3	0.1	0.5	0.4	-0.2
France	-1.2	0.1	2.2	-1.1	-0.2	-1.0	0.4	0.0	0.0	0.6	0.1	-0.3
Germany	7.8	0.1	2.3	7.9	-0.1	-1.7	0.1	-0.1	0.0	0.2	0.0	-0.2
Italy	0.5	0.1	1.1	0.5	-0.2	-0.7	0.4	0.2	0.0	0.6	0.3	-0.2
United Kingdom	-4.0	0.1	2.1	-4.0	-0.1	-0.9	0.3	0.0	0.0	0.5	0.1	-0.2
EFTA	6.7	0.0	-0.2	6.6	-0.2	-0.1	0.5	0.7	0.1	0.7	0.8	-0.1
Russian Federation	-0.7	0.1	0.7	-0.6	-0.1	-0.3	0.9	0.6	0.0	0.8	0.7	0.0
North Africa and Middle East	-4.1	-0.1	-0.8	-4.2	-0.6	-0.2	1.3	1.3	0.1	1.9	1.4	-0.4
Turkey	-4.7	0.1	0.6	-4.6	0.7	-0.5	2.4	1.5	0.0	1.9	1.6	0.8
Developing Sub-Saharan Africa	-5.1	-0.2	-1.2	-5.4	-0.5	2.2	1.5	2.0	0.1	2.4	2.1	-0.3
South Africa	0.7	0.1	0.3	0.8	-0.3	-1.8	0.1	-0.3	0.0	0.4	-0.1	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.5%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.7. Scenario 7: 100% liberalisation of remaining tariffs across all regions in all manufacturing sectors

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.5	-3.8	-1.8	0.8	3.5	5.2	7.3	0.1	4.5	7.5	1.4
New Zealand and rest of Oceania	1.4	-1.7	-2.8	-0.3	4.3	18.2	8.6	15.9	0.4	5.0	16.0	5.2
Rest of World	-7.0	-0.6	-2.9	-7.6	-3.2	-0.9	7.8	7.2	0.4	10.0	8.3	-1.2
China	12.5	-0.3	-3.2	12.3	1.5	2.4	11.8	18.7	0.3	10.9	18.7	2.5
ASEAN plus	13.4	-0.6	-6.0	12.9	0.6	5.0	2.8	4.4	0.1	2.5	4.4	1.7
Japan	3.0	0.4	16.7	3.4	0.9	-3.0	9.0	8.2	0.1	8.1	8.3	1.2
Korea	5.0	-1.3	-12.6	3.7	3.5	11.8	8.0	13.0	0.4	6.4	13.1	4.6
Developing Asia	0.1	-5.7	-37.6	-5.6	4.4	40.3	9.6	23.4	1.1	8.1	23.4	8.4
Indonesia	3.7	0.0	0.2	3.6	2.2	2.4	8.8	10.0	0.2	7.1	10.0	2.9
India	-4.2	-0.6	-5.1	-4.8	-3.3	-1.4	25.8	22.1	0.7	29.8	22.5	-1.8
Canada	-0.5	0.5	7.8	0.0	-2.3	-6.2	2.3	0.2	0.0	4.0	1.1	-1.9
United States	-5.1	0.5	72.0	-4.7	-1.6	-6.3	7.0	0.9	0.0	8.4	1.3	-1.4
Mexico	2.5	-0.7	-7.9	1.7	-1.4	4.1	1.8	5.5	0.3	3.8	6.1	-0.2
Developing Latin America	-1.0	-1.4	-16.7	-2.5	-0.9	10.7	6.3	11.8	0.3	6.8	12.3	0.8
Argentina	5.6	-0.9	-2.5	4.7	-0.5	5.9	0.6	6.4	0.3	1.0	6.3	0.4
Brazil	2.5	-2.8	-36.8	-0.2	5.5	52.6	1.6	31.2	0.3	-2.4	32.1	6.2
Rest of Europe	-0.9	0.5	32.7	-0.4	-1.4	-5.2	1.5	0.2	0.1	2.7	0.9	-1.0
France	-1.2	0.8	19.7	-0.4	-1.2	-8.1	3.7	0.3	0.0	4.9	1.1	-1.1
Germany	7.8	0.5	15.3	8.4	-0.7	-10.4	2.0	1.0	0.1	2.8	1.8	-0.5
Italy	0.5	0.7	14.7	1.2	-0.7	-8.0	4.6	1.8	0.2	5.4	2.6	-0.6
United Kingdom	-4.0	0.7	19.8	-3.4	-1.6	-9.2	4.1	0.4	0.2	5.4	1.1	-1.3
EFTA	6.7	0.2	1.7	6.9	-0.4	-2.4	2.8	2.7	0.2	3.4	3.6	0.1
Russian Federation	-0.7	-0.2	-2.2	-0.9	-4.3	-3.4	9.7	10.3	0.5	12.5	10.9	-2.7
North Africa and Middle East	-4.1	-2.1	-32.2	-6.2	-1.4	9.5	3.2	8.4	0.3	4.0	9.1	0.7
Turkey	-4.7	0.0	-0.2	-4.8	0.1	0.4	5.4	4.4	0.1	5.8	5.3	0.5
Developing Sub-Saharan Africa	-5.1	-4.1	-23.4	-9.2	-1.7	45.9	6.1	18.0	0.8	7.0	18.8	1.1
South Africa	0.7	-1.7	-4.7	-1.0	-1.9	19.3	5.1	11.2	0.3	6.7	11.7	-0.5

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.6%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.8. Scenario 8: 100% liberalisation of remaining tariffs across all regions in the chemicals sector

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.3	-1.3	-0.2	-0.4	0.6	0.4	0.0	0.8	0.5	-0.1
New Zealand and rest of Oceania	1.4	-0.1	-0.2	1.3	0.1	0.9	0.4	0.9	0.1	0.5	1.0	0.2
Rest of World	-7.0	-0.1	-0.4	-7.1	-0.3	0.0	0.6	0.6	0.0	0.9	0.8	0.0
China	12.5	-0.1	-5.1	12.4	-0.2	0.3	1.9	3.7	0.1	2.2	3.8	0.2
ASEAN plus	13.4	-0.2	-1.3	13.3	0.3	1.5	0.5	0.8	0.0	0.4	0.9	0.5
Japan	3.0	0.0	-0.2	3.0	0.2	0.4	0.6	0.8	0.0	0.5	0.9	0.2
Korea	5.0	-0.2	-2.1	4.7	0.5	1.9	1.2	2.0	0.1	1.1	2.1	0.7
Developing Asia	0.1	-0.7	-4.3	-0.6	0.6	4.7	0.8	2.3	0.1	0.7	2.5	1.2
Indonesia	3.7	0.0	-0.1	3.6	-0.1	0.0	1.1	1.4	0.0	1.3	1.5	0.1
India	-4.2	-0.1	-1.1	-4.3	-0.3	0.1	3.4	3.1	0.0	4.1	3.3	0.1
Canada	-0.5	0.1	1.4	-0.4	-0.3	-1.0	0.1	-0.2	0.0	0.4	-0.1	-0.3
United States	-5.1	0.0	5.9	-5.1	-0.1	-0.5	0.9	0.3	0.0	1.0	0.4	-0.1
Mexico	2.5	-0.1	-1.4	2.3	0.1	1.1	-0.2	0.4	0.1	-0.1	0.5	0.2
Developing Latin America	-1.0	0.0	0.1	-1.0	-0.5	-0.6	1.1	1.0	0.0	1.6	1.3	-0.3
Argentina	5.6	-0.1	-0.4	5.5	-0.4	0.6	0.2	1.3	0.0	0.7	1.6	-0.1
Brazil	2.5	0.0	0.3	2.6	-0.6	-1.2	1.8	2.1	0.0	2.4	2.3	-0.4
Rest of Europe	-0.9	0.1	3.6	-0.9	-0.1	-0.6	0.1	-0.1	0.0	0.2	0.1	-0.1
France	-1.2	0.1	1.9	-1.1	-0.1	-0.8	0.3	0.0	0.0	0.5	0.2	-0.1
Germany	7.8	0.1	1.7	7.9	-0.1	-1.2	0.1	0.0	0.0	0.2	0.1	-0.1
Italy	0.5	0.1	2.0	0.6	-0.2	-1.2	0.3	-0.1	0.0	0.5	0.1	-0.2
United Kingdom	-4.0	0.1	2.2	-3.9	-0.2	-1.0	0.3	-0.1	0.0	0.5	0.1	-0.1
EFTA	6.7	0.0	0.2	6.7	0.0	-0.1	0.1	0.1	0.0	0.2	0.2	0.0
Russian Federation	-0.7	0.0	-0.2	-0.7	-0.4	-0.3	1.2	1.3	0.0	1.6	1.4	-0.2
North Africa and Middle East	-4.1	-0.1	-2.3	-4.3	-0.1	0.7	0.4	0.8	0.0	0.6	1.0	0.1
Turkey	-4.7	0.0	0.2	-4.7	-0.1	-0.3	0.6	0.4	0.0	0.7	0.6	0.0
Developing Sub-Saharan Africa	-5.1	-0.2	-0.9	-5.3	-0.4	1.6	0.8	1.1	0.1	1.1	1.3	0.0
South Africa	0.7	0.1	0.2	0.7	-0.4	-1.1	0.6	0.4	0.0	1.0	0.6	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.9. Scenario 9: 100% liberalisation of remaining tariffs across all regions in the motor vehicles sector

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.3	-2.2	-1.6	-0.1	1.5	-0.1	1.3	0.1	-0.1	1.4	0.1
New Zealand and rest of Oceania	1.4	-0.3	-0.5	1.1	0.0	2.5	-0.2	1.0	0.0	-0.3	1.1	0.2
Rest of World	-7.0	0.0	-0.2	-7.1	-0.4	-0.2	0.3	0.3	0.1	0.6	0.5	-0.3
China	12.5	0.0	-1.5	12.5	-0.2	-0.2	0.8	1.5	0.0	1.0	1.4	-0.1
ASEAN plus	13.4	-0.1	-1.5	13.3	-0.2	0.6	0.3	0.6	0.1	0.3	0.5	0.1
Japan	3.0	0.0	1.2	3.0	0.9	0.9	1.4	1.5	0.0	0.6	1.5	0.9
Korea	5.0	-0.1	-0.3	4.9	1.1	1.6	1.1	1.3	0.1	0.5	1.3	1.1
Developing Asia	0.1	-0.9	-6.0	-0.8	0.0	5.7	0.3	2.5	0.2	0.4	2.4	0.5
Indonesia	3.7	0.1	0.3	3.7	-0.3	-0.7	0.4	0.3	0.0	0.6	0.3	-0.2
India	-4.2	0.1	0.8	-4.2	-0.4	-0.5	1.5	0.7	0.0	1.7	0.7	-0.3
Canada	-0.5	0.1	1.6	-0.4	-0.4	-1.2	0.0	-0.4	0.0	0.3	-0.3	-0.3
United States	-5.1	0.1	14.1	-5.1	-0.2	-1.2	0.8	-0.2	0.0	1.0	-0.2	-0.2
Mexico	2.5	-0.5	-4.7	2.0	0.3	3.8	-1.1	0.9	0.0	-0.9	1.0	0.6
Developing Latin America	-1.0	-0.5	-6.2	-1.5	0.1	4.4	-0.2	1.9	0.1	-0.3	2.1	0.4
Argentina	5.6	-0.2	-0.7	5.4	-0.3	1.4	-1.4	-0.3	0.1	-1.2	-0.1	-0.2
Brazil	2.5	0.2	2.2	2.7	-0.9	-4.0	1.6	0.3	0.0	2.2	0.4	-0.8
Rest of Europe	-0.9	0.1	5.1	-0.8	-0.2	-0.8	0.2	-0.1	0.0	0.3	0.0	-0.1
France	-1.2	0.2	4.6	-1.0	-0.3	-1.9	0.6	-0.2	0.0	0.8	-0.1	-0.2
Germany	7.8	0.1	3.0	7.9	0.0	-1.8	0.5	0.3	0.0	0.6	0.5	0.0
Italy	0.5	0.2	3.7	0.6	-0.2	-2.1	0.5	-0.2	0.0	0.7	-0.1	-0.2
United Kingdom	-4.0	0.1	3.3	-3.9	-0.2	-1.5	0.5	-0.1	0.0	0.6	0.0	-0.2
EFTA	6.7	0.1	1.1	6.8	-0.1	-1.3	0.2	-0.1	0.0	0.3	0.0	-0.1
Russian Federation	-0.7	-0.1	-1.1	-0.7	-0.7	-0.3	0.8	1.2	0.1	1.1	1.3	-0.3
North Africa and Middle East	-4.1	-0.5	-8.2	-4.6	0.0	2.7	-0.5	1.0	0.0	-0.6	1.1	0.4
Turkey	-4.7	0.1	0.5	-4.6	-0.2	-0.9	0.5	0.1	0.0	0.7	0.2	-0.1
Developing Sub-Saharan Africa	-5.1	-0.7	-4.6	-5.9	0.3	9.2	-0.8	1.8	0.1	-1.0	1.9	0.5
South Africa	0.7	-1.4	-4.1	-0.8	0.1	18.8	-0.2	5.0	0.2	-0.2	5.0	0.7

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.10. Scenario 10: 100% liberalisation of remaining tariffs across all regions in the machinery sector

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	-0.2	-0.2	0.9	0.9	0.0	1.0	0.9	0.0
New Zealand and rest of Oceania	1.4	-0.3	-0.5	1.1	0.0	2.1	0.5	1.6	0.0	0.5	1.7	0.1
Rest of World	-7.0	-0.2	-0.7	-7.2	-1.0	-0.4	0.9	1.0	0.0	1.4	1.1	-0.5
China	12.5	-0.1	-3.1	12.4	0.3	0.8	3.9	6.4	0.0	3.7	6.4	0.7
ASEAN plus	13.4	-0.1	-1.0	13.4	-0.2	0.3	0.3	0.5	0.0	0.4	0.5	0.1
Japan	3.0	0.1	6.9	3.2	0.7	-0.7	2.1	1.4	0.0	1.5	1.4	0.7
Korea	5.0	-0.6	-6.1	4.3	1.7	5.7	2.4	4.7	0.0	1.6	4.6	2.1
Developing Asia	0.1	-1.9	-11.8	-1.7	1.1	12.4	0.7	5.0	0.2	0.3	5.0	1.9
Indonesia	3.7	-0.1	-0.2	3.6	0.2	0.5	0.8	1.2	0.0	0.7	1.1	0.3
India	-4.2	-0.1	-1.0	-4.4	-1.4	-0.9	5.9	4.9	0.0	6.8	5.0	-0.9
Canada	-0.5	0.2	2.6	-0.3	-0.4	-1.7	0.3	-0.4	0.0	0.6	-0.1	-0.3
United States	-5.1	0.2	30.2	-5.0	-0.6	-2.6	1.6	-0.5	0.0	2.1	-0.4	-0.5
Mexico	2.5	0.1	0.3	2.5	-0.9	-1.3	1.9	2.0	0.2	2.9	2.2	-0.6
Developing Latin America	-1.0	-0.7	-8.3	-1.7	0.0	5.7	-0.3	2.5	0.1	-0.3	2.7	0.4
Argentina	5.6	-0.8	-2.0	4.8	0.4	6.0	-1.4	2.7	0.1	-1.6	2.8	0.6
Brazil	2.5	-1.4	-18.3	1.2	0.8	23.5	-2.8	11.0	0.2	-3.2	11.1	1.0
Rest of Europe	-0.9	0.2	13.1	-0.7	-0.3	-1.8	0.5	-0.1	0.0	0.7	0.0	-0.2
France	-1.2	0.3	7.4	-0.9	-0.3	-2.9	1.3	0.0	0.0	1.5	0.1	-0.3
Germany	7.8	0.1	4.2	8.0	0.0	-2.3	0.6	0.4	0.0	0.7	0.5	0.0
Italy	0.5	0.3	5.7	0.7	0.0	-2.8	1.5	0.4	0.0	1.5	0.5	0.0
United Kingdom	-4.0	0.2	6.3	-3.8	-0.3	-2.8	0.9	-0.2	0.0	1.2	-0.1	-0.3
EFTA	6.7	0.3	2.2	6.9	0.0	-2.2	0.7	0.1	0.0	0.7	0.2	0.0
Russian Federation	-0.7	-0.1	-0.7	-0.7	-1.3	-1.0	2.3	2.5	0.1	2.9	2.6	-0.9
North Africa and Middle East	-4.1	-0.8	-13.6	-5.0	-0.1	4.4	-0.5	1.9	0.0	-0.5	2.0	0.5
Turkey	-4.7	0.1	0.7	-4.6	0.1	-1.0	1.1	0.4	0.0	1.1	0.5	0.1
Developing Sub-Saharan Africa	-5.1	-2.0	-12.0	-7.1	0.7	24.3	-1.8	5.2	0.2	-2.2	5.2	1.2
South Africa	0.7	-0.1	-0.4	0.5	-0.2	1.5	0.4	1.0	0.0	0.6	1.0	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.5%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.11. Scenario 11: 30% decrease in the cost of producing and delivering to the foreign market across in retail trade (Modes 1 and 2)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	0.1	0.1	0.5	0.4	0.1	0.5	0.5	0.1
New Zealand and rest of Oceania	1.4	0.0	-0.1	1.3	0.2	0.4	0.5	0.6	0.2	0.4	0.6	0.2
Rest of World	-7.0	0.0	0.2	-7.0	0.0	-0.1	0.3	0.1	0.1	0.3	0.2	0.0
China	12.5	0.0	1.5	12.6	0.0	-0.2	0.5	0.6	0.2	0.6	0.6	0.0
ASEAN plus	13.4	-0.2	-1.3	13.2	0.6	2.1	0.2	0.4	0.3	-0.1	0.4	0.6
Japan	3.0	0.0	-0.8	3.0	0.0	0.2	0.4	0.6	0.1	0.4	0.6	0.0
Korea	5.0	0.0	0.3	5.0	-0.1	-0.3	0.4	0.4	0.2	0.5	0.4	-0.1
Developing Asia	0.1	-0.1	-0.8	0.0	0.3	1.0	0.4	0.7	0.2	0.4	0.7	0.2
Indonesia	3.7	0.0	0.0	3.7	-0.1	-0.2	0.5	0.6	0.2	0.6	0.6	-0.1
India	-4.2	0.0	0.5	-4.2	-0.1	-0.2	0.3	0.0	0.0	0.4	0.0	-0.1
Canada	-0.5	0.0	-0.4	-0.5	0.0	0.2	0.2	0.3	0.1	0.2	0.3	0.0
United States	-5.1	0.0	4.6	-5.1	-0.1	-0.4	0.5	0.1	0.0	0.6	0.2	-0.1
Mexico	2.5	0.1	0.8	2.6	-0.1	-0.8	0.4	0.1	0.1	0.5	0.2	-0.2
Developing Latin America	-1.0	0.0	0.0	-1.0	0.0	0.0	0.2	0.2	0.1	0.3	0.3	0.0
Argentina	5.6	-0.1	-0.1	5.6	0.2	0.6	0.1	0.3	0.1	0.1	0.4	0.2
Brazil	2.5	0.0	0.6	2.6	-0.1	-0.9	0.4	0.1	0.0	0.5	0.1	-0.1
Rest of Europe	-0.9	-0.1	-3.2	-1.0	0.1	0.5	0.3	0.5	0.2	0.3	0.5	0.1
France	-1.2	0.0	-0.3	-1.2	0.0	0.1	0.4	0.4	0.1	0.4	0.4	0.0
Germany	7.8	-0.1	-1.8	7.8	0.0	1.1	0.3	0.5	0.2	0.3	0.5	0.0
Italy	0.5	0.0	-0.8	0.4	0.1	0.5	0.4	0.6	0.2	0.4	0.6	0.1
United Kingdom	-4.0	0.0	0.0	-4.0	0.0	0.0	0.5	0.4	0.1	0.6	0.5	0.0
EFTA	6.7	0.0	-0.3	6.6	0.1	0.4	0.2	0.3	0.1	0.2	0.4	0.1
Russian Federation	-0.7	0.0	0.4	-0.6	-0.1	-0.2	0.3	0.1	0.1	0.4	0.2	-0.1
North Africa and Middle East	-4.1	0.0	0.5	-4.1	0.1	-0.1	0.4	0.2	0.1	0.4	0.3	0.1
Turkey	-4.7	0.0	0.2	-4.7	0.0	-0.3	0.2	0.0	0.0	0.2	0.1	0.0
Developing Sub-Saharan Africa	-5.1	0.1	0.4	-5.1	-0.1	-0.8	0.5	0.2	0.1	0.6	0.3	-0.1
South Africa	0.7	0.0	0.0	0.7	0.0	-0.3	0.4	0.3	0.2	0.5	0.4	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.12. Scenario 12: 30% decrease in the cost of producing and delivering to the foreign market across in financial services and insurance (Modes 1 and 2)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.2	-1.3	0.0	-0.2	0.3	0.2	0.1	0.4	0.2	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	-0.2	0.3	0.2	0.1	0.4	0.3	0.0
Rest of World	-7.0	0.0	0.3	-7.0	-0.1	-0.2	0.2	0.1	0.1	0.3	0.1	-0.1
China	12.5	0.0	1.3	12.6	-0.1	-0.2	0.2	0.1	0.1	0.3	0.2	-0.1
ASEAN plus	13.4	-0.1	-0.6	13.4	0.2	0.7	0.1	0.2	0.2	0.2	0.3	0.1
Japan	3.0	0.1	2.1	3.1	-0.1	-0.6	0.4	0.2	0.1	0.6	0.2	-0.1
Korea	5.0	0.0	0.5	5.0	-0.1	-0.3	0.1	0.0	0.0	0.2	0.1	-0.1
Developing Asia	0.1	0.0	0.3	0.2	0.0	-0.3	0.2	0.1	0.1	0.3	0.2	0.0
Indonesia	3.7	0.0	0.2	3.7	0.0	-0.3	0.3	0.2	0.1	0.4	0.3	0.0
India	-4.2	0.1	0.8	-4.2	-0.1	-0.3	0.6	0.1	0.1	0.8	0.2	-0.1
Canada	-0.5	0.0	0.2	-0.5	-0.1	-0.1	0.4	0.4	0.2	0.6	0.5	-0.1
United States	-5.1	0.0	0.0	-5.1	-0.1	0.0	0.5	0.3	0.1	0.6	0.4	-0.1
Mexico	2.5	0.0	-0.2	2.5	0.1	0.3	-0.2	-0.2	0.2	-0.2	-0.1	0.1
Developing Latin America	-1.0	0.0	0.4	-1.0	0.0	-0.3	0.3	0.2	0.1	0.4	0.3	0.0
Argentina	5.6	0.0	0.1	5.7	-0.1	-0.4	0.2	0.0	0.0	0.3	0.1	-0.1
Brazil	2.5	0.1	0.6	2.6	-0.1	-1.0	0.5	0.1	0.0	0.6	0.2	-0.1
Rest of Europe	-0.9	-0.1	-5.0	-1.0	0.2	0.8	0.3	0.5	0.3	0.3	0.5	0.2
France	-1.2	0.0	0.5	-1.2	0.0	-0.2	0.3	0.2	0.1	0.4	0.3	0.0
Germany	7.8	0.0	0.5	7.9	0.0	-0.3	0.2	0.2	0.1	0.3	0.3	0.0
Italy	0.5	0.1	1.1	0.5	-0.1	-0.6	0.4	0.2	0.1	0.4	0.2	-0.1
United Kingdom	-4.0	-0.1	-4.2	-4.2	0.4	2.0	0.4	0.9	0.2	0.2	1.0	0.4
EFTA	6.7	0.0	-0.3	6.6	0.2	0.6	0.1	0.3	0.1	0.1	0.3	0.2
Russian Federation	-0.7	0.0	0.3	-0.6	0.0	-0.1	0.2	0.1	0.1	0.3	0.2	0.0
North Africa and Middle East	-4.1	0.0	0.5	-4.1	0.0	-0.2	0.2	0.1	0.1	0.3	0.2	0.0
Turkey	-4.7	0.0	0.3	-4.7	-0.1	-0.5	0.4	0.1	0.1	0.5	0.1	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	0.2	-5.1	0.0	-0.3	0.3	0.2	0.1	0.4	0.2	0.0
South Africa	0.7	0.0	0.1	0.7	0.0	-0.5	0.2	0.1	0.1	0.3	0.2	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.

Source: Authors' calculations.

Table A3.13. Scenario 13: 30% decrease in the cost of producing and delivering to the foreign market across in business services (Modes 1 and 2)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.4	-1.3	-0.1	-0.4	0.7	0.4	0.2	1.0	0.6	-0.1
New Zealand and rest of Oceania	1.4	-0.1	-0.1	1.3	0.2	0.9	0.8	1.2	0.4	1.0	1.4	0.1
Rest of World	-7.0	0.2	1.4	-6.9	-0.2	-0.8	0.8	0.2	0.2	1.1	0.4	-0.2
China	12.5	0.2	5.1	12.7	-0.2	-0.8	0.4	-0.1	0.1	0.7	0.2	-0.3
ASEAN plus	13.4	-0.2	-1.5	13.2	0.7	2.3	0.3	0.6	0.6	0.4	0.8	0.6
Japan	3.0	0.0	0.1	3.0	-0.1	-0.1	0.7	0.8	0.2	1.0	1.0	-0.1
Korea	5.0	0.0	-0.4	4.9	0.3	0.6	0.3	0.5	0.3	0.7	0.7	0.3
Developing Asia	0.1	0.0	0.2	0.1	0.1	-0.1	0.4	0.3	0.4	0.6	0.5	0.1
Indonesia	3.7	-0.1	-0.5	3.5	0.4	1.3	-0.6	-0.2	0.4	-0.6	0.0	0.3
India	-4.2	0.1	1.1	-4.1	0.3	0.0	0.3	-0.3	0.2	0.2	-0.1	0.3
Canada	-0.5	-0.2	-2.2	-0.7	0.3	1.4	0.5	1.0	0.3	0.7	1.3	0.2
United States	-5.1	0.1	8.2	-5.1	-0.2	-0.7	1.3	0.4	0.1	1.6	0.7	-0.2
Mexico	2.5	0.2	2.0	2.7	-0.4	-1.9	0.4	-0.4	0.0	0.8	-0.1	-0.4
Developing Latin America	-1.0	0.1	1.1	-0.9	-0.1	-0.8	0.7	0.3	0.2	0.9	0.6	-0.1
Argentina	5.6	0.1	0.4	5.8	-0.1	-1.1	0.6	-0.1	0.1	0.8	0.3	-0.1
Brazil	2.5	0.2	2.8	2.8	-0.5	-4.1	2.0	0.3	0.1	2.5	0.6	-0.5
Rest of Europe	-0.9	-0.3	-19.0	-1.2	0.6	2.8	1.0	1.7	0.8	1.1	2.0	0.5
France	-1.2	0.0	-1.2	-1.2	0.1	0.5	0.9	1.1	0.3	1.1	1.3	0.1
Germany	7.8	0.1	3.6	7.9	0.1	-1.7	1.3	1.2	0.6	1.6	1.4	0.0
Italy	0.5	0.1	1.7	0.5	0.0	-0.8	1.3	1.0	0.4	1.6	1.2	-0.1
United Kingdom	-4.0	-0.2	-6.2	-4.2	0.4	2.9	1.1	1.8	0.4	1.0	2.0	0.4
EFTA	6.7	-0.3	-2.6	6.3	0.5	3.4	0.4	1.4	0.5	0.6	1.6	0.3
Russian Federation	-0.7	0.1	1.6	-0.5	-0.3	-0.9	0.8	0.2	0.2	1.1	0.4	-0.3
North Africa and Middle East	-4.1	0.1	2.2	-4.0	0.0	-0.7	1.1	0.6	0.4	1.4	0.9	0.0
Turkey	-4.7	0.2	1.2	-4.6	-0.3	-1.9	0.6	-0.3	0.0	0.9	-0.1	-0.3
Developing Sub-Saharan Africa	-5.1	0.0	0.3	-5.1	0.0	-0.6	0.8	0.5	0.4	1.0	0.7	0.0
South Africa	0.7	0.2	0.5	0.8	-0.2	-2.6	0.4	-0.3	0.0	0.6	0.0	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.14. Scenario 14: 100% liberalisation of remaining tariffs across all sectors (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.9	-1.2	0.3	-0.3	1.1	0.5	0.0	0.8	0.7	0.4
New Zealand and rest of Oceania	1.4	0.1	0.2	1.5	0.0	-0.7	0.3	-0.1	0.0	0.3	0.0	0.0
Rest of World	-7.0	0.1	0.7	-6.9	0.2	-0.2	0.5	0.2	0.0	0.3	0.3	0.2
China	12.5	-0.8	-32.2	11.7	-1.1	1.5	6.3	14.0	0.2	7.6	14.0	0.1
ASEAN plus	13.4	-1.1	-13.5	12.3	-0.2	8.3	2.1	4.6	0.2	2.3	4.8	1.2
Japan	3.0	-0.1	-2.7	2.9	0.8	1.7	1.1	1.8	0.0	0.6	2.1	0.8
Korea	5.0	-0.1	-0.4	4.9	1.0	1.6	0.9	1.2	0.1	0.4	1.4	1.0
Developing Asia	0.1	0.0	0.3	0.2	0.6	0.3	0.3	0.2	0.0	0.1	0.4	0.6
Indonesia	3.7	0.1	0.4	3.8	-0.1	-0.7	0.3	-0.1	0.0	0.4	0.2	-0.1
India	-4.2	0.1	1.1	-4.1	-0.2	-0.5	0.4	-0.2	0.0	0.7	0.0	-0.2
Canada	-0.5	0.1	1.7	-0.4	-0.3	-1.2	0.1	-0.3	0.0	0.4	-0.1	-0.3
United States	-5.1	0.1	10.4	-5.1	-0.2	-0.9	0.7	-0.1	0.0	0.9	0.2	-0.2
Mexico	2.5	0.2	2.0	2.7	-0.4	-1.9	0.3	-0.5	0.0	0.7	-0.3	-0.4
Developing Latin America	-1.0	0.1	1.7	-0.9	-0.4	-1.5	0.1	-0.4	0.0	0.4	-0.2	-0.3
Argentina	5.6	0.1	0.3	5.8	-0.5	-1.5	0.1	-0.5	0.0	0.6	-0.2	-0.5
Brazil	2.5	0.2	2.8	2.8	-0.6	-4.2	1.0	-1.0	0.0	1.5	-0.8	-0.6
Rest of Europe	-0.9	0.1	7.7	-0.8	-0.1	-1.0	0.2	-0.1	0.0	0.3	0.0	-0.1
France	-1.2	0.1	3.6	-1.0	-0.2	-1.4	0.5	-0.1	0.0	0.7	0.0	-0.2
Germany	7.8	0.1	2.3	7.9	0.1	-1.1	0.4	0.3	0.0	0.4	0.5	0.1
Italy	0.5	0.2	3.4	0.6	-0.2	-1.9	0.5	-0.1	0.0	0.7	0.0	-0.2
United Kingdom	-4.0	0.1	3.5	-3.9	-0.1	-1.6	0.4	-0.2	0.0	0.5	-0.1	-0.2
EFTA	6.7	0.1	0.8	6.7	0.0	-0.7	0.2	0.0	0.0	0.3	0.2	0.0
Russian Federation	-0.7	0.1	0.7	-0.6	0.0	-0.3	0.3	0.0	0.0	0.3	0.2	0.0
North Africa and Middle East	-4.1	0.1	2.4	-4.0	-0.2	-0.9	0.1	-0.3	0.0	0.3	-0.1	-0.2
Turkey	-4.7	0.1	0.9	-4.6	-0.2	-1.5	0.4	-0.3	0.0	0.6	-0.2	-0.2
Developing Sub-Saharan Africa	-5.1	0.1	0.8	-5.0	-0.2	-1.6	0.1	-0.4	0.0	0.3	-0.2	-0.2
South Africa	0.7	0.1	0.3	0.8	-0.2	-1.7	0.2	-0.2	0.0	0.4	0.0	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.3%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.15. Scenario 15: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Modes 1 and 2) (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.1	0.2	0.1	0.1	0.0	0.0	0.2	0.1
Rest of World	-7.0	0.0	0.2	-7.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.0
China	12.5	0.0	0.0	12.5	0.0	0.0	1.1	1.7	0.5	1.4	1.8	0.0
ASEAN plus	13.4	-0.7	-6.6	12.7	1.2	6.6	1.7	3.1	2.2	2.3	3.2	1.0
Japan	3.0	0.0	0.5	3.0	0.0	-0.2	0.1	0.0	0.0	0.2	0.2	0.0
Korea	5.0	0.0	0.1	5.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.1	0.0
Developing Asia	0.1	0.0	-0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Indonesia	3.7	0.0	0.0	3.7	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0
India	-4.2	0.0	0.3	-4.2	0.0	-0.1	0.1	0.0	0.0	0.2	0.1	0.0
Canada	-0.5	0.0	0.2	-0.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
United States	-5.1	0.0	1.4	-5.1	0.0	-0.1	0.2	0.0	0.0	0.2	0.2	0.0
Mexico	2.5	0.0	0.5	2.5	-0.1	-0.5	0.1	-0.1	0.0	0.2	0.0	-0.1
Developing Latin America	-1.0	0.0	0.1	-1.0	0.0	-0.1	0.1	0.0	0.0	0.1	0.1	0.0
Argentina	5.6	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Brazil	2.5	0.0	0.4	2.6	-0.1	-0.6	0.2	-0.1	0.0	0.3	0.1	-0.1
Rest of Europe	-0.9	0.0	0.8	-0.9	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0
France	-1.2	0.0	0.7	-1.1	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
Germany	7.8	0.0	0.5	7.9	-0.1	-0.4	0.0	-0.1	0.0	0.0	0.0	-0.1
Italy	0.5	0.0	0.6	0.5	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
United Kingdom	-4.0	0.0	0.1	-4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
EFTA	6.7	0.0	0.2	6.7	0.0	-0.2	0.0	-0.1	0.0	0.0	0.0	0.0
Russian Federation	-0.7	0.0	0.2	-0.6	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	-0.1
North Africa and Middle East	-4.1	0.0	-0.3	-4.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Turkey	-4.7	0.0	0.1	-4.7	0.0	-0.2	0.1	0.0	0.0	0.1	0.1	0.0
Developing Sub-Saharan Africa	-5.1	0.0	0.0	-5.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
South Africa	0.7	0.0	0.0	0.7	0.0	-0.2	0.0	0.0	0.0	0.1	0.1	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.16. Scenario 16: 100% liberalisation of remaining tariffs in agriculture and processed food (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.7	-1.2	0.1	-0.4	0.5	0.0	0.0	0.3	0.1	0.1
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of World	-7.0	0.0	-0.1	-7.0	0.3	0.3	0.4	0.4	0.0	0.1	0.3	0.3
China	12.5	-0.1	-4.3	12.4	0.0	0.4	0.1	0.7	0.0	0.1	0.7	0.0
ASEAN plus	13.4	-0.2	-1.9	13.3	0.0	1.1	0.2	0.5	0.0	0.3	0.6	0.2
Japan	3.0	0.0	0.4	3.0	0.0	-0.1	0.1	0.0	0.0	0.1	0.1	0.0
Korea	5.0	0.0	0.1	5.0	0.1	0.1	0.2	0.2	0.0	0.2	0.2	0.1
Developing Asia	0.1	0.1	0.4	0.2	0.0	-0.3	0.1	0.0	0.0	0.1	0.0	0.1
Indonesia	3.7	0.0	0.1	3.7	0.0	-0.1	0.1	0.0	0.0	0.1	0.1	0.0
India	-4.2	0.0	0.0	-4.2	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1
Canada	-0.5	0.0	0.1	-0.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
United States	-5.1	0.0	1.1	-5.1	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
Mexico	2.5	0.0	0.1	2.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Developing Latin America	-1.0	0.0	0.2	-1.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Argentina	5.6	0.0	0.0	5.6	-0.1	-0.2	0.0	-0.1	0.0	0.1	-0.1	-0.1
Brazil	2.5	0.0	0.1	2.6	0.0	-0.2	0.0	-0.1	0.0	0.0	-0.1	0.0
Rest of Europe	-0.9	0.0	0.8	-0.9	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
France	-1.2	0.0	0.4	-1.2	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Germany	7.8	0.0	0.4	7.9	0.0	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
Italy	0.5	0.0	0.4	0.5	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
United Kingdom	-4.0	0.0	0.3	-4.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
EFTA	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	-0.7	0.0	0.1	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Africa and Middle East	-4.1	0.0	0.2	-4.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	-4.7	0.0	0.1	-4.7	0.0	-0.2	0.1	0.0	0.0	0.1	0.0	0.0
Developing Sub-Saharan Africa	-5.1	0.0	0.2	-5.1	-0.1	-0.3	0.0	-0.1	0.0	0.1	-0.1	-0.1
South Africa	0.7	0.0	0.0	0.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.17. Scenario 17: 100% liberalisation of remaining tariffs in all manufacturing sectors (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.1	-1.3	0.2	0.1	0.6	0.4	0.0	0.5	0.6	0.2
New Zealand and rest of Oceania	1.4	0.1	0.1	1.5	0.0	-0.7	0.3	0.0	0.0	0.3	0.1	0.0
Rest of World	-7.0	0.1	0.8	-7.0	-0.1	-0.5	0.1	-0.2	0.0	0.2	0.0	-0.1
China	12.5	-0.7	-28.1	11.8	-1.1	1.1	6.2	13.3	0.2	7.4	13.3	0.0
ASEAN plus	13.4	-1.0	-11.6	12.4	-0.2	7.2	1.9	4.1	0.1	2.1	4.2	1.0
Japan	3.0	-0.1	-3.1	2.9	0.8	1.8	1.1	1.8	0.0	0.5	2.0	0.8
Korea	5.0	-0.1	-0.5	4.9	0.9	1.5	0.8	1.0	0.0	0.3	1.2	0.9
Developing Asia	0.1	0.0	0.0	0.1	0.5	0.6	0.3	0.3	0.0	0.0	0.4	0.5
Indonesia	3.7	0.1	0.3	3.7	-0.1	-0.5	0.2	-0.1	0.0	0.3	0.1	-0.1
India	-4.2	0.1	1.1	-4.1	-0.2	-0.5	0.6	-0.1	0.0	0.7	0.1	-0.2
Canada	-0.5	0.1	1.6	-0.4	-0.3	-1.1	0.1	-0.3	0.0	0.3	-0.1	-0.3
United States	-5.1	0.1	9.3	-5.1	-0.2	-0.8	0.7	-0.1	0.0	0.8	0.2	-0.2
Mexico	2.5	0.2	1.9	2.7	-0.4	-1.9	0.3	-0.5	0.0	0.7	-0.3	-0.4
Developing Latin America	-1.0	0.1	1.5	-0.9	-0.3	-1.3	0.1	-0.4	0.0	0.4	-0.2	-0.3
Argentina	5.6	0.1	0.3	5.8	-0.4	-1.3	0.1	-0.4	0.0	0.5	-0.1	-0.4
Brazil	2.5	0.2	2.7	2.8	-0.6	-4.1	1.0	-0.9	0.0	1.4	-0.7	-0.6
Rest of Europe	-0.9	0.1	6.9	-0.8	-0.1	-0.9	0.2	-0.1	0.0	0.3	0.0	-0.1
France	-1.2	0.1	3.2	-1.1	-0.1	-1.3	0.5	-0.1	0.0	0.6	0.0	-0.1
Germany	7.8	0.1	1.9	7.9	0.1	-0.8	0.4	0.3	0.0	0.4	0.5	0.1
Italy	0.5	0.1	3.0	0.6	-0.1	-1.6	0.5	-0.1	0.0	0.6	0.0	-0.2
United Kingdom	-4.0	0.1	3.2	-3.9	-0.1	-1.4	0.4	-0.2	0.0	0.5	0.0	-0.1
EFTA	6.7	0.1	0.7	6.7	0.0	-0.7	0.2	0.0	0.0	0.3	0.2	0.0
Russian Federation	-0.7	0.0	0.6	-0.6	0.0	-0.3	0.3	0.0	0.0	0.4	0.2	-0.1
North Africa and Middle East	-4.1	0.1	2.2	-4.0	-0.1	-0.8	0.1	-0.2	0.0	0.3	-0.1	-0.2
Turkey	-4.7	0.1	0.8	-4.6	-0.2	-1.4	0.3	-0.3	0.0	0.5	-0.2	-0.2
Developing Sub-Saharan Africa	-5.1	0.1	0.6	-5.0	-0.1	-1.3	0.1	-0.3	0.0	0.3	-0.1	-0.1
South Africa	0.7	0.1	0.3	0.8	-0.1	-1.6	0.2	-0.2	0.0	0.4	0.0	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.3%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.18. Scenario 18: 100% liberalisation of remaining tariffs in the chemicals sector (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.2	-1.3	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	-0.2	0.0	-0.1	0.0	0.1	0.0	0.0
Rest of World	-7.0	0.0	0.2	-7.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
China	12.5	-0.2	-6.5	12.4	-0.3	0.2	1.6	3.3	0.1	1.9	3.3	0.1
ASEAN plus	13.4	-0.2	-1.5	13.3	0.2	1.4	0.4	0.7	0.0	0.3	0.8	0.4
Japan	3.0	0.0	-0.1	3.0	0.1	0.1	0.2	0.2	0.0	0.1	0.3	0.1
Korea	5.0	0.0	0.0	5.0	0.1	0.2	0.2	0.2	0.0	0.1	0.3	0.1
Developing Asia	0.1	0.0	-0.3	0.1	0.2	0.5	0.1	0.2	0.0	0.0	0.3	0.2
Indonesia	3.7	0.0	0.1	3.7	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0
India	-4.2	0.0	0.3	-4.2	-0.1	-0.1	0.1	0.0	0.0	0.2	0.0	-0.1
Canada	-0.5	0.0	0.4	-0.5	-0.1	-0.3	0.0	-0.1	0.0	0.1	-0.1	-0.1
United States	-5.1	0.0	0.4	-5.1	0.0	0.0	0.2	0.1	0.0	0.2	0.2	0.0
Mexico	2.5	0.0	0.4	2.5	-0.1	-0.4	0.1	-0.1	0.0	0.1	-0.1	-0.1
Developing Latin America	-1.0	0.0	0.3	-1.0	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
Argentina	5.6	0.0	0.0	5.6	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0
Brazil	2.5	0.0	0.6	2.6	-0.1	-0.9	0.2	-0.2	0.0	0.3	-0.1	-0.1
Rest of Europe	-0.9	0.0	1.7	-0.9	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
France	-1.2	0.0	0.9	-1.1	-0.1	-0.4	0.1	-0.1	0.0	0.2	0.0	-0.1
Germany	7.8	0.0	0.6	7.9	0.0	-0.5	0.0	-0.1	0.0	0.1	0.0	-0.1
Italy	0.5	0.0	0.8	0.5	-0.1	-0.5	0.1	-0.1	0.0	0.1	0.0	-0.1
United Kingdom	-4.0	0.0	0.8	-4.0	-0.1	-0.4	0.1	-0.1	0.0	0.1	0.0	-0.1
EFTA	6.7	0.0	0.1	6.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.0
Russian Federation	-0.7	0.0	0.1	-0.6	0.1	0.0	0.2	0.1	0.0	0.2	0.2	0.0
North Africa and Middle East	-4.1	0.0	0.1	-4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Turkey	-4.7	0.0	0.2	-4.7	-0.1	-0.4	0.1	-0.1	0.0	0.1	-0.1	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	0.1	-5.1	0.0	-0.3	0.0	-0.1	0.0	0.0	0.0	0.0
South Africa	0.7	0.0	0.1	0.7	-0.1	-0.5	0.0	-0.1	0.0	0.1	0.0	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.19. Scenario 19: 100% liberalisation of remaining tariffs in the motor vehicles sector (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.1	-1.3	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Rest of World	-7.0	0.0	0.1	-7.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
China	12.5	-0.1	-5.1	12.4	-0.2	0.2	0.7	1.7	0.1	0.8	1.7	-0.1
ASEAN plus	13.4	-0.2	-2.9	13.2	-0.1	1.6	0.1	0.6	0.1	0.2	0.6	0.1
Japan	3.0	0.0	-0.3	3.0	0.2	0.3	0.2	0.3	0.0	0.1	0.3	0.2
Korea	5.0	0.0	0.0	5.0	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.2
Developing Asia	0.1	0.0	0.3	0.2	-0.1	-0.3	0.0	-0.1	0.0	0.1	-0.1	-0.1
Indonesia	3.7	0.0	0.1	3.7	-0.1	-0.2	0.0	-0.1	0.0	0.1	-0.1	-0.1
India	-4.2	0.0	0.2	-4.2	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
Canada	-0.5	0.0	0.2	-0.5	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
United States	-5.1	0.0	2.0	-5.1	0.0	-0.2	0.1	0.0	0.0	0.1	0.0	0.0
Mexico	2.5	0.0	0.2	2.5	0.0	-0.2	0.0	-0.1	0.0	0.1	0.0	-0.1
Developing Latin America	-1.0	0.0	0.2	-1.0	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Argentina	5.6	0.0	0.0	5.7	0.0	-0.2	0.0	-0.1	0.0	0.1	0.0	0.0
Brazil	2.5	0.0	0.5	2.6	-0.1	-0.7	0.2	-0.1	0.0	0.2	-0.1	-0.1
Rest of Europe	-0.9	0.0	1.1	-0.9	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
France	-1.2	0.0	0.6	-1.2	0.0	-0.2	0.1	0.0	0.0	0.1	0.0	0.0
Germany	7.8	0.0	0.5	7.9	0.1	-0.1	0.2	0.2	0.0	0.1	0.2	0.1
Italy	0.5	0.0	0.6	0.5	0.0	-0.3	0.1	0.0	0.0	0.1	0.0	0.0
United Kingdom	-4.0	0.0	0.5	-4.0	0.0	-0.2	0.1	0.0	0.0	0.1	0.0	0.0
EFTA	6.7	0.0	0.2	6.7	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Russian Federation	-0.7	0.0	0.1	-0.6	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
North Africa and Middle East	-4.1	0.0	0.4	-4.1	0.0	-0.2	0.0	-0.1	0.0	0.1	0.0	0.0
Turkey	-4.7	0.0	0.1	-4.7	0.0	-0.2	0.1	0.0	0.0	0.1	0.0	0.0
Developing Sub-Saharan Africa	-5.1	0.0	0.1	-5.1	0.0	-0.3	0.0	-0.1	0.0	0.1	0.0	0.0
South Africa	0.7	0.0	0.0	0.7	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.20. Scenario 20: 100% liberalisation of remaining tariffs in the machinery sector (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.2	-1.3	0.0	-0.2	0.1	0.0	0.0	0.2	0.0	0.0
New Zealand and rest of Oceania	1.4	0.0	0.1	1.4	-0.1	-0.4	0.1	-0.1	0.0	0.1	-0.1	-0.1
Rest of World	-7.0	0.0	0.3	-7.0	-0.1	-0.2	0.0	-0.1	0.0	0.1	0.0	-0.1
China	12.5	-0.2	-9.6	12.3	-0.3	0.4	2.1	4.5	0.0	2.5	4.5	0.0
ASEAN plus	13.4	-0.3	-3.4	13.2	-0.2	1.9	0.1	0.6	0.0	0.2	0.7	0.1
Japan	3.0	-0.1	-1.9	3.0	0.4	1.0	0.4	0.8	0.0	0.1	0.9	0.4
Korea	5.0	0.0	-0.4	4.9	0.3	0.6	0.3	0.4	0.0	0.1	0.5	0.3
Developing Asia	0.1	0.0	0.2	0.1	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Indonesia	3.7	0.0	0.0	3.7	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0
India	-4.2	0.0	0.4	-4.2	0.0	-0.1	0.2	0.0	0.0	0.3	0.1	-0.1
Canada	-0.5	0.0	0.4	-0.5	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
United States	-5.1	0.0	4.1	-5.1	-0.1	-0.4	0.2	-0.1	0.0	0.3	0.0	-0.1
Mexico	2.5	0.1	0.8	2.6	-0.2	-0.8	0.1	-0.2	0.0	0.3	-0.1	-0.2
Developing Latin America	-1.0	0.0	0.5	-1.0	-0.1	-0.4	0.0	-0.1	0.0	0.1	-0.1	-0.1
Argentina	5.6	0.0	0.1	5.7	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.0	-0.1
Brazil	2.5	0.1	0.7	2.6	-0.1	-1.0	0.3	-0.2	0.0	0.4	-0.1	-0.1
Rest of Europe	-0.9	0.0	2.3	-0.9	0.0	-0.3	0.1	0.0	0.0	0.1	0.0	0.0
France	-1.2	0.0	1.1	-1.1	0.0	-0.4	0.2	0.0	0.0	0.2	0.0	0.0
Germany	7.8	0.0	0.2	7.8	0.1	0.1	0.1	0.2	0.0	0.1	0.2	0.1
Italy	0.5	0.0	0.9	0.5	0.0	-0.5	0.2	0.0	0.0	0.2	0.1	0.0
United Kingdom	-4.0	0.0	1.1	-4.0	0.0	-0.5	0.1	-0.1	0.0	0.2	0.0	0.0
EFTA	6.7	0.0	0.3	6.7	0.0	-0.2	0.2	0.1	0.0	0.1	0.1	0.0
Russian Federation	-0.7	0.0	0.3	-0.6	0.0	-0.1	0.0	-0.1	0.0	0.1	0.0	-0.1
North Africa and Middle East	-4.1	0.1	1.0	-4.0	-0.1	-0.4	0.0	-0.2	0.0	0.1	-0.1	-0.1
Turkey	-4.7	0.0	0.3	-4.7	-0.1	-0.4	0.1	-0.1	0.0	0.2	-0.1	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	0.1	-5.1	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
South Africa	0.7	0.0	0.1	0.7	0.0	-0.6	0.1	-0.1	0.0	0.1	0.0	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.21. Scenario 21: 30% decrease in the cost of producing and delivering to the foreign market in retail trade (Modes 1 and 2) (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Rest of World	-7.0	0.0	0.0	-7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	12.5	0.0	0.8	12.6	0.0	-0.1	0.5	0.6	0.2	0.6	0.6	0.0
ASEAN plus	13.4	-0.1	-0.9	13.3	0.2	1.0	0.3	0.6	0.3	0.4	0.6	0.2
Japan	3.0	0.0	0.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Korea	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developing Asia	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	3.7	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India	-4.2	0.0	0.0	-4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Canada	-0.5	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	-5.1	0.0	0.1	-5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	2.5	0.0	0.1	2.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Developing Latin America	-1.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Argentina	5.6	0.0	0.0	5.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	2.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of Europe	-0.9	0.0	-0.2	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
France	-1.2	0.0	0.0	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany	7.8	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	-4.0	0.0	-0.1	-4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EFTA	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	-0.7	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Africa and Middle East	-4.1	0.0	-0.1	-4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	-4.7	0.0	0.0	-4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developing Sub-Saharan Africa	-5.1	0.0	-0.1	-5.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.22. Scenario 22: 30% decrease in the cost of producing and delivering to the foreign market in financial services and insurance (Modes 1 and 2) (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of World	-7.0	0.0	0.0	-7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	12.5	0.0	-0.1	12.5	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.0
ASEAN plus	13.4	-0.1	-0.8	13.4	0.1	0.8	0.2	0.3	0.2	0.2	0.4	0.1
Japan	3.0	0.0	0.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Korea	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developing Asia	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	3.7	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India	-4.2	0.0	0.0	-4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Canada	-0.5	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	-5.1	0.0	0.3	-5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	2.5	0.0	0.1	2.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Developing Latin America	-1.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Argentina	5.6	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	2.5	0.0	0.1	2.6	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Rest of Europe	-0.9	0.0	0.1	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
France	-1.2	0.0	0.1	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany	7.8	0.0	0.1	7.8	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Italy	0.5	0.0	0.1	0.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	-4.0	0.0	-0.1	-4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EFTA	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	-0.7	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Africa and Middle East	-4.1	0.0	0.0	-4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	-4.7	0.0	0.0	-4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developing Sub-Saharan Africa	-5.1	0.0	0.0	-5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	0.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.23. Scenario 23: 30% decrease in the cost of producing and delivering to the foreign market in business services (Modes 1 and 2) (China + ASEAN)

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.0	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of World	-7.0	0.0	0.1	-7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	12.5	0.0	-0.2	12.5	0.0	0.0	0.2	0.3	0.1	0.2	0.3	0.0
ASEAN plus	13.4	-0.3	-2.4	13.2	0.5	2.6	0.5	1.0	0.6	0.6	1.0	0.5
Japan	3.0	0.0	0.3	3.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.0
Korea	5.0	0.0	0.1	5.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Developing Asia	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	3.7	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India	-4.2	0.0	0.1	-4.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Canada	-0.5	0.0	0.1	-0.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
United States	-5.1	0.0	1.0	-5.1	0.0	-0.1	0.1	0.0	0.0	0.1	0.0	0.0
Mexico	2.5	0.0	0.2	2.5	0.0	-0.2	0.0	0.0	0.0	0.1	0.0	0.0
Developing Latin America	-1.0	0.0	0.1	-1.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Argentina	5.6	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	2.5	0.0	0.2	2.6	0.0	-0.3	0.1	0.0	0.0	0.1	0.0	0.0
Rest of Europe	-0.9	0.0	0.1	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
France	-1.2	0.0	0.2	-1.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Germany	7.8	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Italy	0.5	0.0	0.2	0.5	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	-4.0	0.0	-0.1	-4.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
EFTA	6.7	0.0	0.1	6.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	-0.7	0.0	0.1	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Africa and Middle East	-4.1	0.0	-0.1	-4.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	-4.7	0.0	0.1	-4.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Developing Sub-Saharan Africa	-5.1	0.0	0.0	-5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	0.7	0.0	0.0	0.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.24. Scenario 24: 10% consumption decrease in the United States combined with 10% consumption increase in China with unemployment in selected regions

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.7	-5.9	-2.0	6.1	9.9	-1.2	2.7	0.0	-2.8	2.7	1.5
New Zealand and rest of Oceania	1.4	-1.0	-1.6	0.4	5.4	13.4	-1.2	2.6	0.0	-2.6	2.2	1.1
Rest of World	-7.0	-0.5	-5.1	-7.6	5.1	6.2	0.2	2.0	0.0	-1.2	1.1	1.3
China	12.5	-3.9	-124.3	8.6	-3.4	7.1	-7.8	4.1	0.0	-3.2	1.3	1.1
ASEAN plus	13.4	-1.0	-9.7	12.5	2.6	11.4	0.1	1.6	0.0	-0.9	1.2	0.8
Japan	3.0	-1.0	-42.5	2.0	8.0	20.9	-3.4	2.7	0.0	-5.5	3.0	1.6
Korea	5.0	-1.0	-10.1	4.0	4.8	12.0	-1.2	1.7	0.0	-2.7	1.5	1.5
Developing Asia	0.1	-1.1	-7.1	-1.0	3.8	10.6	-1.0	1.6	0.0	-2.2	1.0	0.9
Indonesia	3.7	-0.6	-2.6	3.0	3.8	8.3	-0.6	1.9	0.0	-1.9	1.4	0.9
India	-4.2	-0.7	-8.7	-4.9	4.2	6.0	-1.8	2.8	0.1	-3.7	2.6	1.4
Canada	-0.5	-1.2	-17.2	-1.7	9.0	17.4	-1.7	2.8	1.4	-1.8	4.7	0.3
United States	-5.1	3.5	492.0	-1.7	48.3	-16.3	22.3	-10.6	-2.2	26.3	-10.9	-4.2
Mexico	2.5	-1.7	-16.8	0.8	4.9	18.0	-4.6	2.2	0.3	-5.3	3.8	1.0
Developing Latin America	-1.0	-0.9	-10.8	-1.9	7.1	14.0	-1.4	2.4	0.1	-2.5	2.7	1.1
Argentina	5.6	-0.9	-2.1	4.8	5.5	13.3	-1.3	3.1	0.1	-2.8	2.7	1.5
Brazil	2.5	-1.2	-15.0	1.4	17.5	43.0	-5.0	5.6	0.1	-7.7	6.1	2.5
Rest of Europe	-0.9	-1.0	-61.0	-1.9	8.9	15.6	-0.3	2.2	0.3	-1.8	1.4	1.6
France	-1.2	-0.9	-24.6	-2.1	13.6	21.0	-2.0	2.1	0.2	-4.2	1.4	2.1
Germany	7.8	-1.2	-36.6	6.6	8.1	40.9	-0.5	2.9	0.2	-2.1	2.4	1.6
Italy	0.5	-1.0	-22.3	-0.6	10.9	22.5	-2.1	2.2	-0.2	-4.3	1.5	2.0
United Kingdom	-4.0	-0.8	-24.4	-4.8	21.5	21.6	-1.1	2.7	0.1	-2.7	2.4	1.5
EFTA	6.7	-1.1	-8.6	5.6	5.2	17.1	-0.6	2.3	0.0	-2.0	1.6	1.4
Russian Federation	-0.7	-0.2	-2.4	-0.8	3.6	4.4	0.5	1.4	0.0	-0.6	0.6	1.1
North Africa and Middle East	-4.1	-1.1	-19.4	-5.2	5.8	10.9	-0.8	2.6	0.0	-2.1	2.3	1.4
Turkey	-4.7	-0.6	-4.1	-5.3	19.4	16.6	0.1	2.8	0.0	-1.6	2.2	1.6
Developing Sub-Saharan Africa	-5.1	-0.9	-5.9	-6.0	28.0	22.5	-0.3	3.1	0.1	-1.5	2.7	1.2
South Africa	0.7	-1.1	-3.3	-0.5	13.0	28.9	-0.5	3.6	0.4	-2.0	3.3	1.4

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	3.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.0%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.25. Scenario 25: 100% liberalisation of remaining tariffs across all regions and all sectors with unemployment in selected regions

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.1	-0.8	-1.4	0.4	1.0	6.4	6.5	0.1	5.9	6.8	1.0
New Zealand and rest of Oceania	1.4	-1.6	-2.6	-0.2	3.9	16.4	9.2	15.9	0.4	6.1	16.1	4.9
Rest of World	-7.0	-0.5	-2.1	-7.5	-3.1	-1.2	9.3	8.1	0.4	11.3	9.2	-1.1
China	12.5	-0.1	1.7	12.4	1.4	1.9	12.6	19.4	0.3	11.9	19.6	2.5
ASEAN plus	13.4	-0.6	-5.9	12.9	0.5	4.8	3.1	4.7	0.2	2.9	4.9	1.9
Japan	3.0	0.6	25.9	3.6	0.6	-5.6	10.2	8.2	0.1	9.6	8.5	1.0
Korea	5.0	-1.7	-17.1	3.2	4.2	15.3	8.0	14.5	0.9	6.4	14.7	5.0
Developing Asia	0.1	-5.9	-38.9	-5.8	4.5	41.7	10.8	25.1	1.2	9.4	25.4	9.1
Indonesia	3.7	0.3	1.7	4.0	2.0	0.0	10.3	10.2	0.2	8.8	10.4	2.8
India	-4.2	-1.1	-11.0	-5.3	-3.0	0.5	30.2	28.2	0.9	34.6	28.8	-1.0
Canada	-0.5	0.6	7.9	0.1	-2.1	-6.1	2.5	0.3	0.4	4.4	1.4	-2.0
United States	-5.1	0.7	111.8	-4.4	-2.0	-9.6	9.2	0.2	-0.1	10.9	0.8	-1.6
Mexico	2.5	-1.1	-11.8	1.3	-0.8	7.6	1.0	6.2	1.1	3.1	7.0	-0.4
Developing Latin America	-1.0	-1.2	-13.8	-2.2	-0.8	8.8	8.9	13.3	0.3	9.4	13.9	1.1
Argentina	5.6	-0.5	-1.4	5.1	-0.5	2.9	2.0	5.8	0.2	1.8	5.7	0.4
Brazil	2.5	-2.6	-34.1	0.0	5.6	49.5	3.6	31.6	0.2	-1.0	32.6	6.4
Rest of Europe	-0.9	0.3	18.3	-0.6	-0.5	-2.7	2.1	1.4	0.8	3.3	2.1	-0.9
France	-1.2	0.7	19.0	-0.4	-0.8	-7.5	4.2	0.9	0.5	5.4	1.7	-1.1
Germany	7.8	-0.1	-1.3	7.8	0.5	1.9	1.9	2.5	1.0	2.6	3.3	-0.3
Italy	0.5	0.3	7.0	0.8	0.4	-3.0	4.6	3.3	1.0	5.3	4.1	-0.2
United Kingdom	-4.0	0.2	4.7	-3.9	-0.1	-2.1	3.6	2.3	1.2	4.7	3.0	-1.0
EFTA	6.7	0.4	2.8	7.0	-0.5	-3.7	3.7	3.4	0.3	4.4	4.3	0.2
Russian Federation	-0.7	-0.1	-0.5	-0.7	-4.2	-3.9	11.0	10.8	0.4	13.5	11.4	-2.6
North Africa and Middle East	-4.1	-2.0	-30.1	-6.1	-2.0	8.4	5.0	9.6	0.5	6.2	10.4	0.3
Turkey	-4.7	0.2	1.3	-4.5	0.8	-1.5	8.4	5.8	0.1	8.3	6.7	1.3
Developing Sub-Saharan Africa	-5.1	-4.1	-23.5	-9.3	-2.2	46.0	8.2	19.8	0.9	10.0	20.7	0.9
South Africa	0.7	-2.6	-7.5	-2.0	0.2	34.0	4.3	13.9	2.2	6.0	14.6	-0.6

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.6%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.26. Scenario 26: 100% liberalisation of remaining tariffs combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2) with unemployment in selected regions

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	1.0	8.4	-0.3	-0.8	-6.7	13.1	6.7	0.8	13.8	7.9	-0.1
New Zealand and rest of Oceania	1.4	-0.6	-1.0	0.7	4.0	9.1	14.7	17.9	1.8	12.4	19.3	4.9
Rest of World	-7.0	0.6	6.8	-6.5	-3.7	-6.0	13.8	8.6	1.2	16.9	10.3	-1.7
China	12.5	1.2	44.4	13.8	0.7	-3.2	16.6	19.9	0.9	17.0	21.2	1.8
ASEAN plus	13.4	-0.3	-1.4	13.1	2.1	5.2	4.9	6.2	2.4	5.4	7.3	3.3
Japan	3.0	1.8	77.8	4.8	-0.9	-20.2	17.6	8.7	0.8	19.3	9.9	-0.5
Korea	5.0	-0.5	-4.4	4.4	3.5	7.1	11.9	15.1	1.9	12.3	16.4	4.2
Developing Asia	0.1	-4.9	-32.2	-4.8	4.7	35.5	14.6	26.5	2.5	14.0	27.9	9.3
Indonesia	3.7	1.1	4.9	4.7	1.7	-4.9	13.7	10.9	1.1	13.0	11.9	2.5
India	-4.2	0.1	2.5	-4.2	-3.5	-3.7	36.4	26.5	1.3	42.4	28.0	-1.4
Canada	-0.5	0.0	-0.1	-0.5	0.8	0.8	5.5	5.4	4.1	8.1	7.3	-2.0
United States	-5.1	0.6	91.5	-4.5	-0.4	-7.3	13.9	4.3	2.0	16.3	5.8	-1.8
Mexico	2.5	0.3	2.7	2.8	-1.9	-4.1	6.0	5.5	1.8	9.4	7.1	-1.8
Developing Latin America	-1.0	-0.1	-0.9	-1.1	-1.1	-0.4	13.8	13.5	1.0	15.1	15.2	0.8
Argentina	5.6	0.9	2.1	6.5	-1.5	-7.6	6.9	4.4	0.7	7.6	5.7	-0.5
Brazil	2.5	-0.3	-3.4	2.3	1.8	6.7	17.7	25.2	0.4	15.6	27.1	2.7
Rest of Europe	-0.9	-1.3	-85.5	-2.2	5.4	15.3	6.1	9.5	6.9	7.5	10.7	0.8
France	-1.2	0.4	9.9	-0.8	2.1	-1.7	8.0	6.0	3.6	9.7	7.3	-0.3
Germany	7.8	-2.2	-65.8	5.6	5.6	51.4	4.4	11.9	6.1	5.4	13.2	1.1
Italy	0.5	0.5	10.1	0.9	2.4	-2.4	9.5	7.7	3.6	10.9	9.0	0.2
United Kingdom	-4.0	-1.8	-59.4	-5.8	6.4	28.5	5.9	13.8	7.0	6.7	15.3	0.9
EFTA	6.7	0.9	7.8	7.6	0.5	-7.3	7.1	5.8	1.9	8.5	7.2	0.9
Russian Federation	-0.7	0.7	9.0	0.0	-5.1	-8.0	15.4	11.4	1.2	18.9	12.8	-3.5
North Africa and Middle East	-4.1	-0.8	-10.8	-4.9	-2.1	1.9	9.9	10.6	1.9	12.0	12.3	0.1
Turkey	-4.7	1.5	9.5	-3.3	0.2	-14.3	14.9	5.5	0.5	15.5	7.1	0.7
Developing Sub-Saharan Africa	-5.1	-3.1	-17.4	-8.2	-2.4	33.7	13.0	20.3	2.1	15.4	22.2	0.7
South Africa	0.7	-1.8	-5.0	-1.1	0.7	23.7	8.1	14.7	3.8	10.6	16.3	-1.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.5%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.6%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.27. Scenario 27: 100% liberalisation of remaining tariffs across all regions (China + ASEAN) and all sectors with unemployment in selected regions

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.9	-1.2	0.3	-0.3	1.1	0.5	0.0	0.8	0.7	0.4
New Zealand and rest of Oceania	1.4	0.1	0.2	1.5	0.0	-0.7	0.3	-0.1	0.0	0.3	0.0	0.0
Rest of World	-7.0	0.1	0.7	-6.9	0.2	-0.2	0.5	0.2	0.0	0.3	0.3	0.2
China	12.5	-0.8	-32.2	11.7	-1.1	1.5	6.3	14.0	0.2	7.6	14.0	0.1
ASEAN plus	13.4	-1.1	-13.5	12.3	-0.2	8.3	2.1	4.6	0.2	2.3	4.8	1.2
Japan	3.0	-0.1	-2.7	2.9	0.8	1.7	1.1	1.8	0.0	0.6	2.1	0.8
Korea	5.0	-0.1	-0.4	4.9	1.0	1.6	0.9	1.2	0.1	0.4	1.4	1.0
Developing Asia	0.1	0.0	0.3	0.2	0.6	0.3	0.3	0.2	0.0	0.1	0.4	0.6
Indonesia	3.7	0.1	0.4	3.8	-0.1	-0.7	0.3	-0.1	0.0	0.4	0.2	-0.1
India	-4.2	0.1	1.1	-4.1	-0.2	-0.5	0.4	-0.2	0.0	0.7	0.0	-0.2
Canada	-0.5	0.2	2.7	-0.3	-0.5	-1.9	0.2	-0.5	-0.2	0.5	-0.3	-0.4
United States	-5.1	0.1	12.1	-5.1	-0.2	-1.0	0.8	-0.1	0.0	1.0	0.1	-0.2
Mexico	2.5	0.3	2.5	2.7	-0.5	-2.4	0.4	-0.6	-0.1	0.8	-0.4	-0.5
Developing Latin America	-1.0	0.1	1.7	-0.9	-0.4	-1.5	0.1	-0.4	0.0	0.4	-0.2	-0.3
Argentina	5.6	0.1	0.3	5.8	-0.5	-1.5	0.1	-0.5	0.0	0.6	-0.2	-0.5
Brazil	2.5	0.2	2.8	2.8	-0.6	-4.3	1.0	-1.0	0.0	1.5	-0.8	-0.6
Rest of Europe	-0.9	0.1	8.3	-0.8	-0.1	-1.1	0.2	-0.1	0.0	0.3	0.0	-0.1
France	-1.2	0.2	4.0	-1.0	-0.2	-1.6	0.5	-0.1	0.0	0.7	0.0	-0.2
Germany	7.8	-0.1	-1.8	7.8	0.3	1.8	0.3	0.6	0.2	0.3	0.7	0.1
Italy	0.5	0.2	3.3	0.6	-0.1	-1.8	0.5	-0.1	0.0	0.7	0.0	-0.2
United Kingdom	-4.0	0.1	3.5	-3.9	-0.1	-1.5	0.4	-0.2	0.0	0.5	-0.1	-0.1
EFTA	6.7	0.1	0.8	6.7	0.0	-0.7	0.3	0.0	0.0	0.3	0.2	0.0
Russian Federation	-0.7	0.1	0.7	-0.6	0.0	-0.2	0.3	0.0	0.0	0.3	0.2	0.0
North Africa and Middle East	-4.1	0.1	2.4	-4.0	-0.2	-0.9	0.1	-0.3	0.0	0.3	-0.1	-0.2
Turkey	-4.7	0.1	0.9	-4.6	-0.2	-1.5	0.4	-0.3	0.0	0.6	-0.2	-0.2
Developing Sub-Saharan Africa	-5.1	0.1	0.8	-5.0	-0.2	-1.6	0.1	-0.4	0.0	0.3	-0.2	-0.2
South Africa	0.7	0.1	0.4	0.8	-0.2	-1.8	0.2	-0.2	0.0	0.4	0.0	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.1%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.3%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.28. Scenario 28: 100% liberalisation of remaining tariffs combined with 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2, China + ASEAN) with unemployment in selected regions

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.9	-1.2	0.4	-0.3	1.2	0.6	0.0	0.9	0.9	0.4
New Zealand and rest of Oceania	1.4	0.1	0.2	1.5	0.1	-0.6	0.4	0.1	0.0	0.4	0.2	0.1
Rest of World	-7.0	0.1	0.9	-6.9	0.2	-0.3	0.6	0.1	0.1	0.4	0.3	0.2
China	12.5	-0.8	-31.8	11.7	-1.1	1.4	7.5	15.8	0.7	9.0	15.8	0.0
ASEAN plus	13.4	-1.8	-19.9	11.6	0.9	14.7	3.9	7.7	2.4	4.7	8.0	2.2
Japan	3.0	-0.1	-1.7	3.0	0.8	1.4	1.3	1.8	0.0	0.8	2.3	0.7
Korea	5.0	-0.1	-0.2	4.9	1.0	1.5	1.0	1.2	0.1	0.5	1.5	1.0
Developing Asia	0.1	0.0	0.3	0.2	0.6	0.4	0.3	0.2	0.0	0.1	0.6	0.6
Indonesia	3.7	0.1	0.5	3.8	-0.1	-0.8	0.4	0.0	0.0	0.5	0.3	-0.1
India	-4.2	0.1	1.5	-4.1	-0.3	-0.7	0.6	-0.3	0.0	0.9	0.1	-0.3
Canada	-0.5	0.2	2.9	-0.3	-0.5	-2.0	0.2	-0.6	-0.1	0.5	-0.3	-0.4
United States	-5.1	0.1	11.2	-5.1	-0.2	-1.0	0.9	0.0	0.0	1.1	0.4	-0.2
Mexico	2.5	0.3	3.1	2.8	-0.6	-2.9	0.6	-0.7	-0.1	1.1	-0.4	-0.6
Developing Latin America	-1.0	0.2	1.9	-0.9	-0.3	-1.6	0.2	-0.4	0.0	0.5	-0.1	-0.3
Argentina	5.6	0.2	0.3	5.8	-0.5	-1.5	0.2	-0.5	0.0	0.6	-0.1	-0.5
Brazil	2.5	0.3	3.4	2.8	-0.7	-5.1	1.3	-1.1	0.0	1.8	-0.8	-0.7
Rest of Europe	-0.9	0.1	8.9	-0.8	-0.1	-1.2	0.2	-0.2	0.0	0.3	0.0	-0.1
France	-1.2	0.2	4.9	-1.0	-0.2	-2.0	0.6	-0.2	0.0	0.8	0.0	-0.2
Germany	7.8	0.0	-1.1	7.8	0.2	1.2	0.3	0.5	0.2	0.3	0.7	0.1
Italy	0.5	0.2	4.1	0.7	-0.2	-2.3	0.6	-0.2	0.0	0.8	0.0	-0.2
United Kingdom	-4.0	0.1	3.1	-3.9	-0.1	-1.4	0.4	-0.2	0.0	0.5	0.1	-0.2
EFTA	6.7	0.1	1.0	6.8	0.0	-1.1	0.2	-0.1	0.0	0.3	0.1	0.0
Russian Federation	-0.7	0.1	1.0	-0.6	-0.1	-0.4	0.4	0.0	0.0	0.4	0.2	-0.1
North Africa and Middle East	-4.1	0.1	2.3	-4.0	-0.1	-0.9	0.1	-0.3	0.0	0.3	0.0	-0.2
Turkey	-4.7	0.2	1.1	-4.6	-0.2	-1.8	0.5	-0.3	0.0	0.7	-0.1	-0.2
Developing Sub-Saharan Africa	-5.1	0.1	0.8	-5.0	-0.2	-1.7	0.1	-0.3	0.0	0.3	-0.1	-0.2
South Africa	0.7	0.1	0.4	0.8	-0.2	-2.0	0.3	-0.2	0.0	0.5	0.1	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.1%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.2%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.29. Scenario 3B: 10% consumption decrease in the United States combined with 10% consumption increase in China with ROFLEX parameter of 15

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	-0.7	-5.7	-2.0	6.4	10.0	-1.0	2.8	0.0	-2.1	2.2	1.4
New Zealand and rest of Oceania	1.4	-0.9	-1.4	0.5	5.4	12.7	-0.9	2.5	0.0	-1.8	1.8	1.1
Rest of World	-7.0	-0.5	-4.9	-7.5	5.2	6.1	0.3	2.0	0.0	-0.8	0.9	1.2
China	12.5	-3.8	-120.0	8.8	-3.2	6.9	-7.3	4.3	0.0	-9.3	3.6	2.6
ASEAN plus	13.4	-0.9	-8.4	12.6	2.9	11.2	0.4	1.7	0.0	-0.5	1.1	1.0
Japan	3.0	-1.0	-42.8	2.0	8.9	22.3	-3.2	3.1	0.0	-4.6	2.6	1.6
Korea	5.0	-0.9	-9.0	4.1	5.0	11.6	-0.8	1.8	0.0	-1.9	1.3	1.4
Developing Asia	0.1	-1.0	-6.7	-0.9	4.1	10.5	-0.7	1.7	0.0	-1.7	0.8	0.9
Indonesia	3.7	-0.6	-2.4	3.1	4.1	8.5	-0.4	2.0	0.0	-1.4	1.1	1.0
India	-4.2	-0.6	-7.8	-4.8	4.1	5.7	-1.3	2.7	0.0	-2.5	2.0	1.3
Canada	-0.5	-0.9	-12.7	-1.4	5.1	11.4	-1.1	2.3	0.1	-1.3	3.8	0.9
United States	-5.1	3.1	439.2	-2.0	86.0	4.8	22.5	-7.8	-0.2	26.9	-8.8	-4.3
Mexico	2.5	-1.2	-11.7	1.3	4.6	13.9	-2.3	2.5	-0.1	-2.7	3.8	1.2
Developing Latin America	-1.0	-0.7	-9.0	-1.8	7.1	12.7	-0.9	2.3	0.1	-1.6	2.3	1.0
Argentina	5.6	-0.7	-1.7	4.9	4.9	11.3	-0.8	2.7	0.0	-1.8	2.1	1.2
Brazil	2.5	-0.8	-9.8	1.8	13.4	30.9	-2.9	4.2	0.1	-4.2	3.8	1.7
Rest of Europe	-0.9	-0.9	-55.5	-1.8	7.2	13.4	-0.4	1.9	-0.1	-1.6	0.9	1.4
France	-1.2	-0.8	-20.2	-1.9	10.9	17.0	-1.6	1.7	-0.1	-3.1	0.8	1.7
Germany	7.8	-1.0	-31.7	6.8	6.9	35.0	-0.4	2.6	-0.1	-1.6	1.6	1.4
Italy	0.5	-0.9	-18.6	-0.4	10.2	19.9	-1.6	2.0	-0.1	-3.0	1.0	1.7
United Kingdom	-4.0	-0.7	-20.2	-4.7	18.6	18.3	-0.8	2.4	-0.1	-1.9	1.6	1.3
EFTA	6.7	-1.0	-8.0	5.6	5.3	16.6	-0.4	2.2	0.0	-1.5	1.4	1.3
Russian Federation	-0.7	-0.2	-2.2	-0.8	3.8	4.5	0.7	1.5	0.0	-0.3	0.4	1.1
North Africa and Middle East	-4.1	-1.0	-16.5	-5.1	5.7	9.9	-0.4	2.5	0.0	-1.4	1.8	1.2
Turkey	-4.7	-0.6	-4.0	-5.3	19.4	16.5	0.1	2.8	0.0	-1.2	1.8	1.4
Developing Sub-Saharan Africa	-5.1	-0.8	-5.1	-5.9	27.7	20.8	0.1	2.9	0.1	-0.9	2.0	1.1
South Africa	0.7	-1.0	-2.9	-0.4	11.5	25.5	-0.3	3.3	0.1	-1.5	2.4	1.4

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	3.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.0%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.30. Scenario 4B: 100% liberalisation of remaining tariffs across all regions and all sectors with ROFLEX parameter of 15

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	-0.3	-1.4	0.1	0.3	6.3	6.0	0.1	6.1	6.5	0.7
New Zealand and rest of Oceania	1.4	-0.3	-0.5	1.1	2.7	5.3	11.3	13.2	0.3	9.1	13.5	3.8
Rest of World	-7.0	-0.2	0.5	-7.3	-3.7	-2.9	9.5	7.4	0.4	12.2	8.6	-1.6
China	12.5	0.1	7.2	12.6	1.3	1.2	12.9	19.1	0.3	12.4	19.5	2.4
ASEAN plus	13.4	-0.2	-2.1	13.2	0.3	2.1	3.4	4.5	0.2	3.3	4.7	1.7
Japan	3.0	0.0	2.0	3.0	1.1	1.0	7.8	9.2	0.1	6.8	9.6	1.5
Korea	5.0	-0.5	-4.4	4.4	3.2	6.8	10.6	13.6	0.9	9.5	13.9	4.1
Developing Asia	0.1	-1.5	-9.4	-1.4	2.2	11.2	18.0	21.5	1.1	18.2	22.0	6.8
Indonesia	3.7	0.2	1.0	3.8	1.8	0.7	9.7	10.2	0.2	8.5	10.6	2.6
India	-4.2	-0.4	-2.2	-4.6	-3.9	-2.7	33.0	26.2	0.8	38.7	27.0	-1.9
Canada	-0.5	0.1	1.6	-0.4	-2.0	-2.7	1.2	0.8	0.1	2.8	1.6	-1.5
United States	-5.1	0.1	19.2	-5.1	-1.0	-2.0	5.2	2.4	0.0	6.2	3.1	-0.8
Mexico	2.5	-0.3	-3.9	2.1	-1.8	0.7	3.3	5.3	0.3	5.6	5.9	-0.6
Developing Latin America	-1.0	-0.3	-3.7	-1.4	-1.8	0.9	10.6	11.4	0.2	12.0	12.2	0.1
Argentina	5.6	-0.1	-0.4	5.6	-1.5	-1.0	2.6	4.4	0.2	3.2	4.9	-0.5
Brazil	2.5	-0.6	-7.1	2.0	2.0	11.5	13.6	22.8	0.1	11.3	23.8	2.9
Rest of Europe	-0.9	0.1	4.5	-0.8	-1.1	-1.6	1.1	0.9	0.1	2.2	1.7	-0.8
France	-1.2	0.1	3.9	-1.0	-0.8	-2.1	1.8	1.0	0.1	2.6	1.9	-0.7
Germany	7.8	0.1	1.4	7.9	-0.5	-2.1	1.4	1.6	0.1	2.0	2.4	-0.4
Italy	0.5	0.1	2.3	0.6	-0.4	-1.5	3.2	2.8	0.2	3.8	3.7	-0.2
United Kingdom	-4.0	0.1	4.1	-3.9	-1.1	-2.3	2.6	1.6	0.2	3.7	2.3	-0.9
EFTA	6.7	0.0	-0.4	6.6	-0.5	-0.3	2.9	3.6	0.3	3.7	4.5	0.1
Russian Federation	-0.7	0.0	0.0	-0.7	-4.6	-4.4	10.6	10.3	0.4	13.6	11.0	-2.9
North Africa and Middle East	-4.1	-0.6	-6.5	-4.7	-3.3	-0.5	6.8	7.1	0.4	9.1	8.1	-1.1
Turkey	-4.7	0.0	-0.2	-4.7	0.8	0.7	7.3	6.0	0.2	7.3	7.0	1.3
Developing Sub-Saharan Africa	-5.1	-1.1	-4.8	-6.2	-4.6	7.8	12.8	13.3	0.7	16.4	14.5	-1.4
South Africa	0.7	-0.5	-1.5	0.1	-3.0	3.5	6.8	8.8	0.2	9.4	9.8	-1.4

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.5%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.31. Scenario 5B: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors and regions (Modes 1 and 2) with ROFLEX parameter of 15

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.0	0.1	-1.3	-0.1	-0.2	9.3	8.5	0.9	9.8	9.8	0.5
New Zealand and rest of Oceania	1.4	-0.3	-0.5	1.1	3.2	5.7	14.6	16.5	1.8	13.0	17.9	4.2
Rest of World	-7.0	-0.1	2.0	-7.1	-4.1	-3.9	11.7	8.6	1.2	15.4	10.7	-2.1
China	12.5	0.2	11.2	12.7	1.0	0.3	14.2	20.6	0.8	14.4	21.9	2.0
ASEAN plus	13.4	-0.2	-0.5	13.2	1.9	4.0	5.0	6.2	2.4	5.6	7.2	3.1
Japan	3.0	0.0	-1.1	3.0	0.9	1.4	9.6	11.9	0.8	9.7	13.3	1.2
Korea	5.0	-0.5	-4.0	4.5	3.4	6.7	11.6	14.6	1.9	12.0	15.9	4.2
Developing Asia	0.1	-1.4	-9.1	-1.3	2.6	11.2	20.1	23.5	2.4	21.0	25.0	7.2
Indonesia	3.7	0.3	1.4	3.9	1.9	0.3	11.4	11.9	1.2	10.8	13.0	2.6
India	-4.2	-0.2	-0.3	-4.4	-3.7	-3.1	34.1	26.1	1.3	40.4	28.1	-1.6
Canada	-0.5	0.1	1.2	-0.4	-1.9	-2.4	3.6	3.3	1.0	6.0	4.8	-1.5
United States	-5.1	0.1	21.3	-5.1	-1.3	-2.2	8.9	4.6	0.5	10.6	6.2	-1.1
Mexico	2.5	-0.3	-3.2	2.2	-2.2	-0.2	3.7	5.5	0.8	6.7	6.9	-1.0
Developing Latin America	-1.0	-0.3	-3.1	-1.3	-1.6	0.7	12.5	13.1	1.0	14.6	14.8	0.3
Argentina	5.6	0.0	-0.2	5.6	-1.1	-1.0	4.0	5.8	0.8	4.9	7.2	-0.2
Brazil	2.5	-0.5	-6.6	2.0	1.6	10.3	15.5	24.9	0.5	14.0	27.0	2.5
Rest of Europe	-0.9	0.0	-0.8	-0.9	-0.2	-0.1	4.1	4.0	2.1	6.1	5.7	-0.1
France	-1.2	0.1	3.2	-1.1	-0.7	-1.8	4.3	3.5	1.1	6.1	5.2	-0.7
Germany	7.8	0.0	-2.6	7.8	-0.2	1.1	3.8	5.1	1.7	5.5	6.6	-0.2
Italy	0.5	0.1	1.8	0.6	-0.3	-1.1	5.8	5.5	1.3	7.3	7.3	-0.3
United Kingdom	-4.0	0.0	0.5	-4.0	-0.7	-0.5	6.8	5.6	1.6	8.7	7.2	-0.5
EFTA	6.7	-0.1	-1.0	6.5	0.2	1.3	4.8	6.0	1.9	6.6	7.8	0.6
Russian Federation	-0.7	0.1	1.7	-0.6	-5.3	-5.8	12.8	11.7	1.1	17.0	13.3	-3.7
North Africa and Middle East	-4.1	-0.5	-5.3	-4.6	-3.2	-0.8	9.6	9.4	1.9	12.8	11.3	-1.0
Turkey	-4.7	0.1	0.2	-4.7	0.8	0.1	9.1	7.1	0.5	9.4	9.1	1.3
Developing Sub-Saharan Africa	-5.1	-1.1	-4.9	-6.3	-4.7	8.0	15.1	15.3	1.9	19.7	17.5	-1.5
South Africa	0.7	-0.5	-1.5	0.1	-2.9	3.6	8.1	10.2	0.9	11.4	12.1	-1.4

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.3%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.5%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.32. Scenario 14B: 100% liberalisation of remaining tariffs across all sectors (China + ASEAN) with ROFLEX parameter of 15

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.4	-1.3	0.4	0.0	0.9	0.6	0.0	0.6	0.8	0.4
New Zealand and rest of Oceania	1.4	0.0	0.1	1.4	0.1	-0.2	0.2	0.0	0.0	0.2	0.2	0.1
Rest of World	-7.0	0.1	0.5	-7.0	0.2	-0.1	0.5	0.2	0.1	0.2	0.3	0.2
China	12.5	-0.2	-13.7	12.3	-1.4	-0.7	7.5	13.4	0.2	9.0	13.4	-0.2
ASEAN plus	13.4	-0.3	-4.7	13.1	-0.5	2.0	2.7	4.0	0.1	3.1	4.2	0.9
Japan	3.0	0.0	0.4	3.0	0.7	0.8	1.4	1.6	0.0	0.9	2.0	0.6
Korea	5.0	0.0	0.7	5.0	0.9	0.8	1.1	1.1	0.1	0.7	1.4	0.8
Developing Asia	0.1	0.1	0.4	0.2	0.5	0.1	0.3	0.2	0.0	0.1	0.4	0.5
Indonesia	3.7	0.0	0.2	3.7	-0.1	-0.3	0.1	0.0	0.0	0.3	0.3	-0.1
India	-4.2	0.0	0.5	-4.2	-0.2	-0.3	0.2	-0.1	0.0	0.4	0.2	-0.2
Canada	-0.5	0.0	0.6	-0.5	-0.3	-0.5	-0.1	-0.3	0.0	0.1	-0.1	-0.3
United States	-5.1	0.0	4.2	-5.1	-0.1	-0.4	0.4	0.1	0.0	0.6	0.4	-0.1
Mexico	2.5	0.1	0.6	2.5	-0.3	-0.8	-0.1	-0.4	0.0	0.2	-0.2	-0.3
Developing Latin America	-1.0	0.0	0.5	-1.0	-0.3	-0.6	-0.1	-0.3	0.0	0.1	-0.1	-0.3
Argentina	5.6	0.0	0.0	5.7	-0.3	-0.6	-0.1	-0.3	0.0	0.2	0.0	-0.3
Brazil	2.5	0.0	0.5	2.6	-0.3	-1.1	0.0	-0.4	0.0	0.3	-0.2	-0.3
Rest of Europe	-0.9	0.0	2.5	-0.9	-0.1	-0.4	0.0	-0.1	0.0	0.1	0.1	-0.1
France	-1.2	0.0	1.1	-1.1	-0.1	-0.5	0.2	0.0	0.0	0.3	0.1	-0.1
Germany	7.8	0.0	1.0	7.9	0.1	-0.3	0.3	0.3	0.0	0.3	0.5	0.1
Italy	0.5	0.0	1.0	0.5	-0.1	-0.6	0.2	0.0	0.0	0.3	0.1	-0.1
United Kingdom	-4.0	0.0	1.0	-4.0	-0.1	-0.5	0.1	0.0	0.0	0.2	0.1	-0.1
EFTA	6.7	0.0	0.3	6.7	0.0	-0.3	0.1	0.1	0.0	0.1	0.2	0.0
Russian Federation	-0.7	0.0	0.4	-0.6	0.0	-0.1	0.2	0.1	0.0	0.3	0.3	0.0
North Africa and Middle East	-4.1	0.0	0.8	-4.1	-0.1	-0.3	0.0	-0.2	0.0	0.1	0.0	-0.1
Turkey	-4.7	0.0	0.3	-4.7	-0.1	-0.6	0.1	-0.1	0.0	0.3	0.0	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	0.2	-5.1	-0.1	-0.5	-0.1	-0.2	0.0	0.1	0.0	-0.2
South Africa	0.7	0.0	0.1	0.7	-0.1	-0.6	0.1	-0.1	0.0	0.2	0.1	-0.1

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.33. Scenario 15B: 30% decrease in the cost of producing and delivering to the foreign market across all services sectors (Modes 1 and 2) (China + ASEAN) with ROFLEX parameter of 15

	Baseline trade balance (% of GDP)	Change in trade balance (% pts GDP)	Change in trade balance in USD bln	Resulting trade balance (% of GDP)	% Δ value of savings	% Δ value of investment	% Δ value of exports	% Δ value of imports	% Δ real GDP	% Δ volume of exports	% Δ volume of imports	% Δ in real exchange rate*
Australia	-1.3	0.1	0.4	-1.3	0.5	0.1	1.0	0.7	0.0	0.6	1.1	0.5
New Zealand and rest of Oceania	1.4	0.0	0.0	1.4	0.1	-0.1	0.3	0.2	0.0	0.2	0.4	0.1
Rest of World	-7.0	0.1	0.5	-7.0	0.3	-0.1	0.5	0.2	0.1	0.2	0.4	0.2
China	12.5	-0.2	-12.0	12.4	-1.4	-0.9	8.7	15.1	0.7	10.5	15.3	-0.3
ASEAN plus	13.4	-0.4	-4.5	13.0	0.4	3.7	4.9	6.6	2.3	6.1	7.0	1.7
Japan	3.0	0.0	0.1	3.0	0.6	0.8	1.4	1.7	0.0	1.0	2.2	0.6
Korea	5.0	0.0	0.6	5.0	0.9	0.8	1.1	1.1	0.1	0.8	1.5	0.8
Developing Asia	0.1	0.1	0.4	0.2	0.6	0.2	0.3	0.2	0.1	0.2	0.6	0.6
Indonesia	3.7	0.0	0.2	3.7	-0.1	-0.3	0.2	0.0	0.0	0.3	0.4	-0.1
India	-4.2	0.0	0.6	-4.2	-0.2	-0.3	0.2	-0.1	0.0	0.5	0.3	-0.2
Canada	-0.5	0.0	0.5	-0.5	-0.3	-0.5	-0.2	-0.3	0.0	0.1	0.0	-0.3
United States	-5.1	0.0	3.8	-5.1	-0.2	-0.4	0.5	0.2	0.0	0.7	0.6	-0.2
Mexico	2.5	0.1	0.7	2.6	-0.4	-0.9	-0.1	-0.4	0.0	0.2	-0.2	-0.4
Developing Latin America	-1.0	0.0	0.5	-1.0	-0.2	-0.6	-0.1	-0.3	0.0	0.1	0.1	-0.2
Argentina	5.6	0.0	0.0	5.7	-0.3	-0.5	-0.1	-0.3	0.0	0.2	0.1	-0.3
Brazil	2.5	0.0	0.5	2.6	-0.3	-1.0	0.0	-0.3	0.0	0.4	0.0	-0.3
Rest of Europe	-0.9	0.0	2.3	-0.9	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.1	-0.1
France	-1.2	0.0	1.0	-1.1	-0.1	-0.5	0.1	-0.1	0.0	0.2	0.1	-0.1
Germany	7.8	0.0	0.7	7.9	0.1	-0.3	0.3	0.3	0.0	0.3	0.5	0.0
Italy	0.5	0.0	0.9	0.5	-0.1	-0.6	0.1	0.0	0.0	0.3	0.1	-0.1
United Kingdom	-4.0	0.0	0.8	-4.0	-0.1	-0.4	0.1	0.0	0.0	0.2	0.2	-0.1
EFTA	6.7	0.0	0.3	6.7	0.0	-0.3	0.0	0.0	0.0	0.1	0.1	0.0
Russian Federation	-0.7	0.0	0.4	-0.6	0.0	-0.2	0.2	0.1	0.0	0.3	0.3	-0.1
North Africa and Middle East	-4.1	0.0	0.6	-4.1	-0.1	-0.3	0.0	-0.1	0.0	0.1	0.1	-0.1
Turkey	-4.7	0.0	0.3	-4.7	-0.1	-0.5	0.1	-0.1	0.0	0.3	0.2	-0.1
Developing Sub-Saharan Africa	-5.1	0.0	0.2	-5.1	-0.1	-0.4	-0.1	-0.2	0.0	0.1	0.2	-0.1
South Africa	0.7	0.0	0.1	0.7	-0.1	-0.6	0.1	-0.1	0.0	0.2	0.2	-0.2

	Base	Simulation
Sum of absolute values of CA divided by the value of world GDP	4.3%	4.2%
Standard deviation of absolute values of CA as % of GDP across countries	3.5%	3.4%

Note: * % change in an index of primary factor (land, skilled and unskilled labour and capital) prices with respect to numeraire.
Source: Authors' calculations.

Table A3.34. Scenario 3: 10% consumption decrease in the United Sates combined with 10% consumption increase in China
Changes in volumes of imports and exports by product and importing/exporting country

	Australia	New Zealand and rest of Oceania	Rest of world	China	Asean plus	Japan	Korea	Developing Asia	Indonesia	India	Canada	United States	Mexico	Developing Latin America	Argentina	Brazil	Rest of Europe	France	Germany	Italy	United Kingdom	Efta	Russian Federation	North Africa and Middle East	Turkey	Developing Sub-Saharan Africa	South Africa
Agriculture, forestrry and fisheries	0.7	-0.2	-0.2	6.7	0.6	1.4	-0.5	-1.0	-0.3	-0.8	1.6	-9.0	7.6	2.3	-0.2	0.2	-0.5	-0.1	-0.1	-0.7	-0.1	-0.4	-0.6	1.0	1.6	0.8	0.3
Processed foods	0.3	-0.6	-0.2	0.6	0.1	-0.1	-0.5	-0.3	-0.2	0.6	0.8	-0.3	1.6	0.3	0.1	-0.7	-0.4	-1.0	-0.4	-0.7	1.0	-0.9	0.1	0.8	0.1	-0.1	-0.4
Oil, coal and petrochemicals	0.0	-0.6	-0.7	8.4	-0.4	0.8	-0.3	-1.0	-0.3	0.0	3.4	-14.9	8.8	1.0	-0.8	1.0	-1.1	-0.7	-1.2	-0.9	-1.0	-1.1	-0.8	-0.2	1.1	-0.7	-0.5
Other manufactures	0.8	0.3	-0.1	4.9	-0.3	1.0	0.6	-0.9	-0.2	1.3	4.3	-15.4	5.4	2.7	1.0	4.4	0.3	0.2	0.5	0.3	0.4	0.3	-1.3	0.5	0.1	1.3	0.7
Chemicals	1.3	0.4	-0.4	2.8	0.1	1.6	0.4	-0.4	0.2	0.7	2.7	-10.7	2.2	1.7	0.3	2.7	-0.4	0.0	0.4	-0.1	0.2	-0.4	-0.5	0.3	-0.2	0.5	0.9
Metals and metal products	1.1	1.4	1.4	2.4	1.0	2.0	0.9	1.6	2.3	1.9	5.4	-4.5	3.3	3.3	2.4	4.7	1.2	1.1	1.6	1.1	3.3	4.3	0.3	2.8	2.5	2.9	1.2
Motor vehicles	3.1	3.6	1.8	5.0	0.8	2.4	1.6	2.7	0.9	4.6	3.0	-9.8	2.3	2.9	4.4	3.2	1.4	-0.2	2.0	1.3	1.8	1.4	0.4	2.6	1.6	4.8	3.1
Machinery	4.3	5.8	2.4	3.9	2.4	6.7	3.2	2.6	2.9	5.6	5.8	-11.4	3.7	4.9	5.4	13.8	3.1	3.1	5.4	4.5	5.6	2.9	2.0	3.9	5.0	5.0	7.2
Electricity	1.6	0.0	-0.5	3.1	0.2	2.3	2.2	-0.9	-0.4	0.6	9.8	-14.1	2.2	-0.4	0.0	0.8	-0.9	0.0	-1.2	-0.7	-0.5	-0.7	-0.8	-0.9	0.0	-0.1	-0.1
Gas and water	5.0	1.1	-0.1	5.5	0.6	3.2	2.3	0.5	1.5	3.6	5.2	-14.6	3.3	0.8	2.6	2.8	0.5	0.2	-0.3	0.1	2.2	0.7	3.4	1.4	-0.5	2.7	2.5
Construction	2.3	1.1	4.0	6.6	3.3	9.9	4.2	2.7	4.9	4.5	5.4	-10.8	10.3	2.6	5.9	17.1	6.2	8.1	8.5	10.4	7.1	4.6	4.0	6.1	7.8	9.0	9.5
Trade	1.1	0.0	0.6	7.8	-0.2	1.0	0.0	0.3	-1.2	0.6	3.1	-14.9	1.8	-0.2	0.3	-0.1	-0.6	-0.1	-0.4	-0.3	0.4	0.5	0.2	0.7	-1.3	-0.3	-0.8
Transport and logistics nec	0.4	0.8	1.5	5.1	0.8	0.8	1.5	0.6	0.2	0.9	1.6	-10.6	1.9	0.3	0.0	0.3	0.6	1.0	0.9	1.7	0.1	0.8	-0.1	0.6	4.6	1.1	0.5
Sea transport	-0.1	-0.6	0.9	2.6	-0.4	-1.0	-0.8	0.1	-0.5	0.3	0.1	-9.5	-0.1	-0.7	0.2	0.5	-1.0	-1.2	-0.7	-0.8	0.2	-0.5	1.0	0.2	0.8	0.6	0.7
Air transport	0.9	-0.3	0.7	4.1	-0.3	0.8	-0.9	-0.3	-0.7	0.6	2.3	-10.1	0.2	-0.1	0.0	0.2	-0.3	-0.1	0.2	0.5	0.0	0.2	0.1	0.4	-0.8	0.7	0.9
Commnunication	1.7	0.7	1.0	6.3	0.6	3.2	2.6	0.3	0.4	0.3	4.6	-13.3	4.0	0.3	0.0	1.4	0.1	0.5	-0.5	1.0	1.7	0.7	0.3	1.2	-0.8	1.3	1.3
Financial services	3.3	1.9	2.2	6.9	2.0	3.0	3.8	1.5	1.6	3.0	6.6	-13.0	5.5	1.8	2.4	2.6	1.4	1.5	0.2	1.1	1.7	1.3	1.7	2.6	-0.8	2.3	2.0
Insurance	2.3	0.5	1.3	6.5	0.1	1.7	1.9	0.5	1.3	1.5	4.7	-13.1	0.5	0.4	1.7	1.9	0.0	-0.1	-0.6	0.0	0.5	0.7	0.4	1.1	-0.9	1.7	1.7
Business services	2.3	1.5	1.3	6.7	0.9	4.8	3.4	0.4	1.4	0.5	6.3	-11.3	3.2	1.2	0.5	2.4	1.8	2.8	0.2	2.9	1.7	2.2	-0.1	1.8	1.5	1.1	0.9
Other services	4.5	2.7	4.0	9.1	2.2	6.0	4.7	2.9	2.4	3.4	6.5	-10.5	8.1	2.6	3.5	4.2	2.0	2.6	1.3	3.5	3.5	2.0	2.2	4.7	0.4	4.0	3.0

Exports

	Australia	New Zealand and rest of Oceania	Rest of world	China	Asean plus	Japan	Korea	Developing Asia	Indonesia	India	Canada	United States	Mexico	Developing Latin America	Argentina	Brazil	Rest of Europe	France	Germany	Italy	United Kingdom	Efta	Russian Federation	North Africa and Middle East	Turkey	Developing Sub-Saharan Africa	South Africa
Agriculture, forestrry and fisheries	-1.9	-1.7	-2.1	-12.1	-1.3	-3.0	-1.5	0.4	-1.3	0.0	-2.5	13.3	-10.8	-2.5	-1.0	-3.6	-1.3	-2.8	-1.9	-1.9	-2.2	-1.0	-0.9	-2.8	-2.8	-1.8	-2.7
Processed foods	-0.8	0.3	-0.5	-7.7	0.3	-1.4	-0.9	0.3	-0.3	-0.8	1.9	12.0	2.8	0.2	-1.6	-2.3	-0.9	-1.9	-0.5	-2.2	-0.6	-0.3	-0.2	-0.6	-1.7	-0.5	-0.4
Oil, coal and petrochemicals	-5.1	-2.9	-1.5	-10.5	-0.7	-4.2	-1.5	-1.8	-0.7	-3.1	-7.8	21.6	-11.3	-3.1	-1.5	-6.2	-2.2	-4.5	-1.9	-4.8	-3.0	-2.2	-0.8	-2.3	-2.6	-1.3	-2.8
Other manufactures	-2.0	-0.4	0.2	-10.0	-0.6	-3.3	-2.6	-3.0	-1.9	-4.3	-6.5	35.7	-9.1	-5.7	-4.4	-9.6	-1.0	-3.8	-0.9	-3.2	-2.0	-1.0	1.1	-4.5	-0.9	-1.4	-2.1
Chemicals	-4.3	-4.0	-2.8	-10.3	-1.3	-4.8	-2.6	-2.0	-3.4	-4.2	-3.2	28.2	-5.9	-5.5	-6.1	-10.3	-3.9	-5.6	-3.4	-5.4	-3.9	-3.8	-2.3	-3.4	-2.3	-3.3	-3.3
Metals and metal products	-0.7	0.4	0.6	-6.4	0.9	-1.9	-1.0	0.5	0.9	-0.7	2.8	34.8	-0.8	-0.9	-2.4	-7.0	-0.6	-2.5	-0.7	-2.3	0.8	1.8	0.9	0.6	1.0	0.5	-1.6
Motor vehicles	0.2	-0.3	0.1	-7.0	-1.0	-5.6	-2.8	1.5	0.9	-2.5	-3.8	17.4	-4.6	0.0	-1.3	-4.1	-0.3	-0.9	-0.8	-1.7	-0.2	0.0	2.4	1.5	0.3	1.4	-0.4
Machinery	-3.5	-4.1	-0.4	-10.6	-0.5	-5.6	-2.2	-2.2	-2.3	-3.8	0.0	45.2	-4.5	-2.7	-5.7	-12.7	-1.8	-4.6	-2.3	-4.7	-2.1	-1.7	0.7	-2.5	-1.2	-1.0	-1.6
Electricity	-2.6	-1.8	-1.2	-7.0	-2.9	-4.1	-3.0	0.1	-0.7	-2.8	-11.5	21.2	2.6	0.5	-1.9	-7.7	-1.4	-3.3	-1.0	-2.9	-2.3	-0.3	1.1	-1.2	-1.3	-0.7	-1.6
Gas and water	-4.6	-2.7	-3.3	-9.1	-2.0	-7.4	-6.1	-2.4	-1.5	-5.8	-0.7	34.4	-4.2	-3.1	-4.0	-9.3	-3.4	-6.4	-4.5	-6.0	-5.0	-4.0	-2.1	-4.2	-3.8	-4.6	-5.0
Construction	4.9	5.3	4.6	1.3	6.0	3.3	4.9	5.9	6.2	4.3	7.4	29.7	2.5	5.4	4.3	-1.8	4.9	3.9	4.3	3.3	4.3	4.5	6.1	4.1	2.8	4.7	4.3
Trade	-3.4	-2.9	-3.1	-5.3	-0.3	-2.2	-2.1	-1.2	-2.2	-3.8	-5.8	23.4	-8.8	-1.7	-3.6	-4.8	-1.5	-3.0	-1.7	-2.5	-3.1	-1.8	-2.3	-2.7	-2.0	-1.7	-1.4
Transport and logistics nec	-3.4	-2.3	-1.7	-8.2	-1.4	-6.1	-1.0	-2.2	-2.8	-4.1	-1.1	15.7	-4.5	-2.6	-3.0	-5.0	-1.8	-3.2	-2.0	-4.1	-2.3	-3.4	-1.8	-4.1	-3.2	-2.9	-3.6
Sea transport	-2.0	-1.5	-1.6	-2.8	-0.8	-1.7	-0.8	-1.2	-1.2	-1.9	-0.3	6.4	0.0	-1.0	-1.7	-2.7	-1.6	-1.7	-1.6	-1.9	-1.6	-1.5	-1.3	-1.6	-1.7	-1.4	-2.0
Air transport	-4.5	-3.1	-3.2	-4.6	-1.6	-3.0	-1.4	-2.9	-2.5	-3.6	-3.0	10.5	-3.3	-2.1	-4.2	-4.7	-3.1	-3.7	-3.1	-4.0	-3.8	-3.6	-2.5	-3.5	-2.3	-3.4	-4.2
Commnunication	-3.4	-2.7	-3.4	-7.0	-2.2	-5.4	-6.1	-2.3	-2.2	-4.0	-4.0	22.3	-6.8	-2.5	-3.7	-7.5	-2.8	-4.1	-3.3	-4.9	-3.7	-3.3	-1.9	-3.8	-2.3	-3.2	-3.4
Financial services	-5.2	-4.2	-4.8	-8.5	-3.0	-5.1	-6.6	-3.5	-3.4	-5.5	-5.1	21.2	-5.3	-3.9	-5.1	-7.1	-4.3	-6.1	-4.7	-5.7	-4.3	-4.6	-3.0	-5.3	-3.9	-4.6	-4.8
Insurance	-6.9	-3.7	-5.4	-9.1	-3.9	-6.3	-6.0	-4.3	-3.2	-6.9	-6.3	21.2	-7.6	-4.8	-4.0	-7.3	-5.3	-5.0	-5.2	-5.7	-7.8	-6.2	-3.0	-5.5	-4.8	-5.5	-4.9
Business services	-3.6	-2.2	-2.7	-6.4	-1.0	-4.7	-5.8	-1.1	-1.1	-2.3	-2.6	22.9	-2.5	-1.7	-3.4	-6.4	-2.1	-4.2	-2.4	-3.7	-3.0	-2.7	-1.1	-3.0	-3.0	-2.6	-2.7
Other services	-6.0	-5.6	-6.0	-9.6	-3.9	-8.1	-7.8	-4.8	-4.9	-7.4	-5.1	19.6	-7.1	-4.8	-5.5	-10.4	-5.2	-6.3	-6.9	-6.0	-5.9	-5.8	-4.0	-5.7	-5.1	-6.5	-5.5