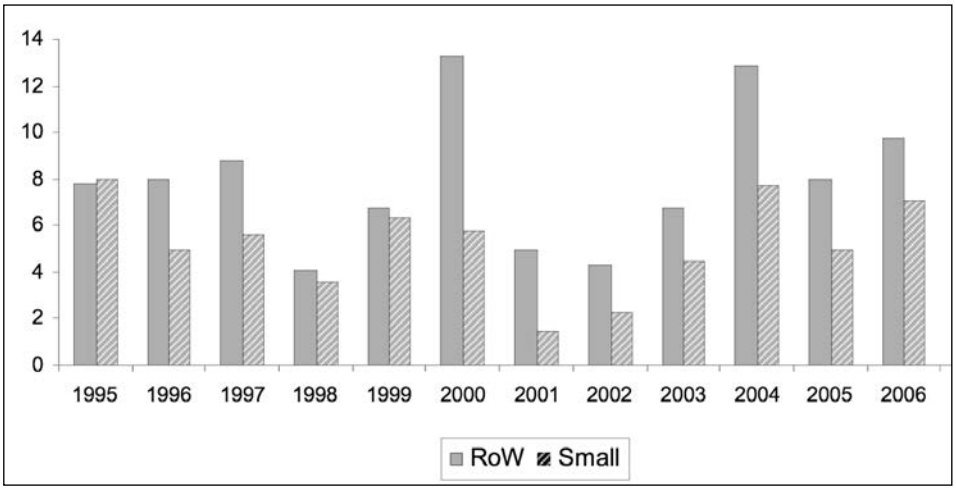
4

An Empirical Analysis of Trade Effects in Small States

The global financial crisis is developing in the context of a challenging international trading environment for small states. The review of the 2000 *Commonwealth/World Bank Joint Task Force Report* produced in 2006 suggests that over the past few years the prospects for small states have deteriorated further due to (future) preference erosion and the emergence of large developing country competitors (Briguglio *et al.*, 2006). Difficulties in competing in this international environment are confirmed by the sluggish rates of small states' export growth relative to the rest of the world (Figure 8). This is more so for goods than for services, which in fact is the sector where the review suggests small states should reposition themselves in the international trading system (Qureshi and te Velde, 2008).

Figure 8. Exports of goods and services (year-by-year percentage growth)



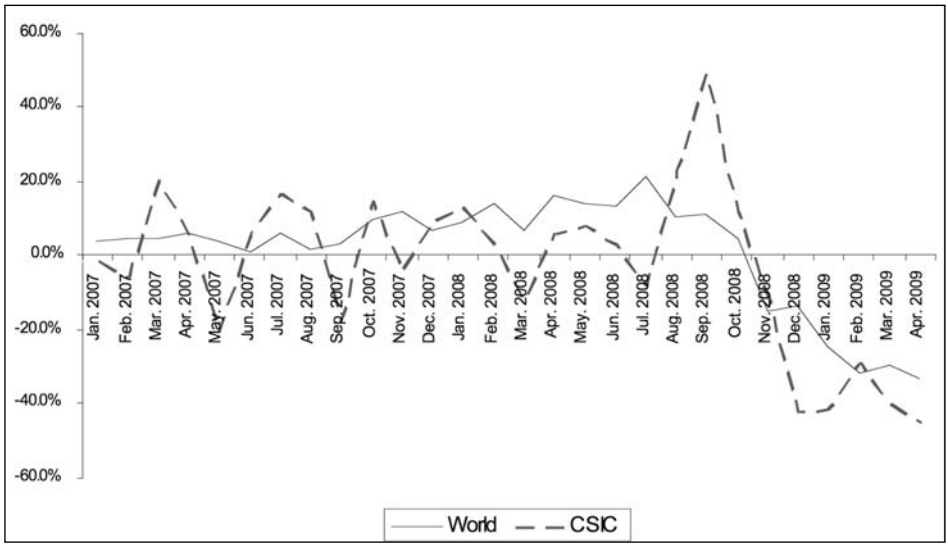
Source: Based on *World Development Indicators* (2008)

Despite their similarities, the countries considered here have different characteristics with respect to their trading patterns, as noted above. These characteristics play a crucial role in determining the magnitude of the trade effects of the crisis. In particular, the types of goods and services that countries export and their destination markets are important factors in gauging the impact that the crisis may have on their exports. An analysis of these factors makes it possible to infer the probable effects of the crisis, notwithstanding the unavailability of recent data on small states' trade. In the next two sub-sections this analysis is made separately for goods and services.

4.1 Trade in goods

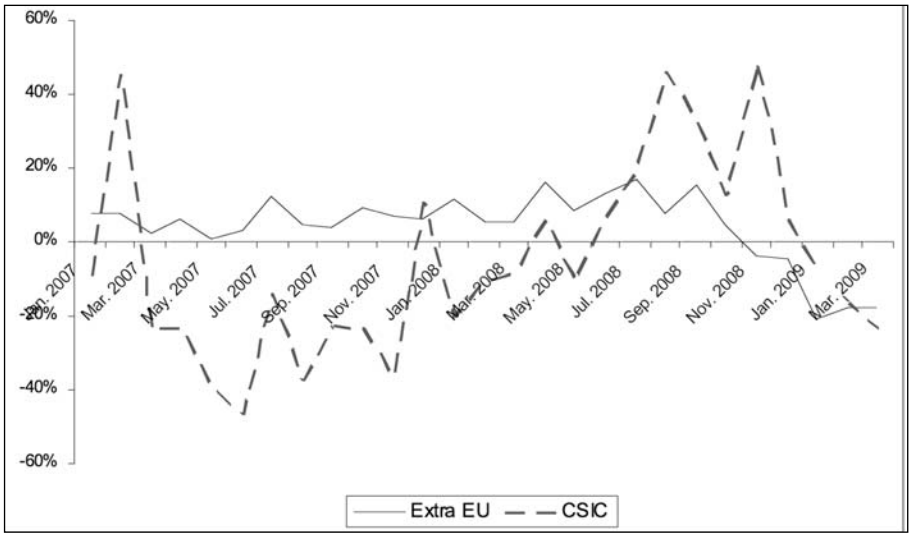
Goods represent more than half of the exports of small states (although a smaller share of the total than for other countries). The combined effects of the channels presented above appear to have already caused a substantial drop in exports of goods. Figure 9 shows the fall in year-on-year monthly imports into the USA from small states and from the world as a whole. The drop in imports from small states (starting in October 2008) appears to be larger than that for total US imports, although it came after a spike in September 2008. Similar, albeit slightly more moderate, drops in imports have occurred also in the EU (Figure 10). Small states' exports show a pattern of decline comparable to the overall decline in EU imports, although it appeared to be worsening in March 2009. It is worth noting, though, that the drop in small states' exports to the EU is still lower than that in the second half of 2007. Overall, small states' merchandise exports seem to be affected by the global financial crisis at least as much as those of other states. In order to identify the possible effects at a more disaggregated level, it is useful to analyse what small states are exporting and to which countries.

Figure 9. Average monthly year-on-year change of US imports from different sources (percentage change)



Note: Based on average daily imports in each month to correct for the discrepancy in the number of days in February 2009 compared with February 2008.
Source: Derived from data obtained from USITC Interactive Tariff and Trade DataWeb

Figure 10. Average monthly year-on-year change of 25 EU imports from different sources (percentage change)



Note: Based on average daily imports in each month to correct for the discrepancy in the number of days in February 2009 compared with February 2008.
Source: Derived from data obtained from Eurostat COMEXT database.

We again base the identification of the major export sectors for small countries on the list of CSIC as defined above. These states tend to export a limited variety of goods relative to what they import. However, in order to draw up a list of sectors that ensures extensive coverage of their exports, it is necessary to include a large number of sectors (using the 3-digit Standard International Trade Classification (SITC) classification). For example, taking the minimum number of sectors accounting for at least 90 per cent of each country's exports produces a list of 191 3-digit sectors. This number is too large to be used as a basis for the analysis, although some general considerations can be made on the basis of this list. Dividing these export categories according to their respective 2-digit sectors highlights the relative importance of three types of exports: agricultural products, manufactured articles and machinery (see Annex Table A1). These are the 2-digit export categories containing the largest number of different 3-digit sectors with positive values. Such a list appears surprising, as the last two of the three categories are not supposed to fit the small states' characteristics. In fact this paradox is more apparent than real. The bulk of manufactured articles is accounted for by sectors which are labour-intensive rather than capital-intensive, such as textiles (and thus less reliant on economies of scale). Most machinery exports are from Malta and their value is fairly low relative to the other categories. In particular, the value of minerals exports is much larger, although these represent significant exports only for a handful of countries (Brunei Darussalam, Trinidad, Botswana, Barbados, Belize, Papua New Guinea (PNG), Guyana, Lesotho and Namibia).

Table 2. Most important small states' exports by sector and country

SITC Rev. 3	3-digit description	Countries for which the goods are important	Value of main exports (US$000)
333	Petroleum/bitum. oil,crude	Barbados, Belize, Brunei Darussalam, PNG, Trinidad	7,506,348
343	Natural gas	Brunei Darussalam, Trinidad	6,347,012
667	Pearls/precious stones	Botswana, Lesotho, Namibia	3,999,148
334	Heavy petrol/bitum. oils	Jamaica, Trinidad	2,486,629
285	Aluminium ores/concs/etc.	Guyana, Jamaica	1,401,964
776	Valves/transistors/etc	Malta	1,370,955
971	Gold non-monetary ex ore	Guyana, PNG	1,039,154
284	Nickel ores/concs/etc.	Botswana	799,915
061	Sugar/molasses/honey	Belize, Fiji Islands, Guyana, Mauritius, Swaziland	796,528
845	Articles of apparel n.e.s.	Lesotho, Mauritius	746,282
686	Zinc	Namibia	624,206
034	Fish,live/frsh/chld/froz.	Fiji Islands, The Gambia, Grenada, Maldives, Namibia	572,221
841	Men's/boys' wear, woven	Lesotho, Mauritius	562,886
283	Copper ores/concentrates	PNG	479,789
551	Essent. oil/perfume/flavr	Swaziland	318,014
598	Misc chemical prods n.e.s.	Swaziland	215,314
037	Fish/shellfish,prep/pres	Maldives, Seychelles	195,481
542	Medicaments include vet	Cyprus	142,702
572	Styrene primary polymers	The Bahamas	141,322
054	Vegetables,frsh/chld/frz	Cyprus, St Vincent, Tonga, Vanuatu	105,108
247	Wood in rough/squared	Solomons	100,278
515	Organo-inorganic compnds	The Bahamas	84,533
036	Crustaceans molluscs, etc.	The Bahamas	82,698
773	Electrical distrib equip.	Samoa	76,217
057	Fruit/nuts, fresh/dried	Belize, Dominica, St Lucia, St Vincent	74,668
111	Beverage non-alcohol n.e.s.	Antigua, Fiji Islands	73,371
059	Fruit/veg juices	Belize	59,248
112	Alcoholic beverages	Barbados, St Lucia	50,398
764	Telecomms equipment n.e.s.	Grenada, St Kitts	18,710
272	Fertilizers crude	Nauru (*mirror*)	12,948
772	Electric circuit equipmt	St Kitts	12,634
554	Soaps/cleansers/polishes	Dominica	10,495
046	Flour/meal wheat/meslin	Grenada, St Vincent	10,408
422	Fixed veg oils not soft	Kiribati, Vanuatu	5,740
223	Oil seeds-not soft oil	Kiribati, Vanuatu	5,720
658	Made-up textile articles	Grenada	4,002
273	Stone/sand/gravel	Dominica	3,805
421	Fixed veg oil/fat, soft	The Gambia, Kiribati	3,451
081	Animal feed ex unml cer.	The Gambia	1,400
674	Rolled plated m-steel	Antigua	1,308
533	Pigments/paints/varnish	Antigua	704
892	Printed matter	Tuvalu	8

Note: Small states are defined as the CSIC (32 countries, see above for definition).
Source: Authors' elaboration based on export data reported to the UN's Comtrade database (other than for Nauru, which is not a reporter and for which mirror data have been used); figures are based on the latest year for which exports have been reported.

A more manageable list of the main export sectors is obtained by compromising on the share of total exports of the small states covered. We identify all those sectors which are the main export for any country and/or whose share of a country's total merchandise exports is greater than 10 per cent. These criteria return a list of 42 sectors (and 76 country/sector combinations), reported in Table 2. These sector/country pairs account for 67 per cent of the total value of the exports of small states. In particular, they account for over half of merchandise exports in 23 out of the 32 small states in the sample, and in all but one of the states (Tuvalu) they represent over one-third of total exports (see Annex Table A2).[8] This therefore seems to be a representative enough sample of exports to draw some inferences about the exports of small states as a whole.

In terms of value, this list suggests that the bulk of the exports are minerals, including oil, gas and precious stones. But the majority of countries are not rich in minerals and instead export agricultural goods, such as food and live animals-related products, and crude materials except oil (see Table 3). This still represents a fairly wide variety of merchandise. In order to get a sense of how these products are being affected by the global financial crisis and test whether demand for them is behaving as the discussion in Section 2 predicts, we proceed in two steps. We first check the price evolution of those products for which official data are available (from the World Bank pink sheet and International Financial Statistics). Then we consider the evolution of their import value in the USA and the EU (for which unit value data are also available).

Of the products in the list of major small states' exports for which price data are available, we select a few which are representative of different categories.[9] The data suggest that in general food products seem to be relatively little affected by the crisis. This is the case, for instance, for bananas (which are a major export for a number of Caribbean countries), as well for sugar (a major export for Caribbean and Southern African countries). The price of bananas in the EU market fell abruptly in the second half of 2008, since when it has almost returned to the peak levels of April 2008 (Figure 11). A similar pattern is also visible in the US market, although the fall and recovery have been less dramatic. A lot of the future development in this market will depend on the EU banana regime reform.

After a substantial increase in the period 2006–2008, the free market sugar price remained fairly stable and even increased slightly in the last couple of months up to April 2009 (see Figure 12). This reflects declining production in the EU as well as the rising oil prices which encouraged Brazil (the world's largest sugar producer) to shift some production from cane sugar to ethanol. With the falling oil price, it is expected that the demand for ethanol will fall, which may result in increased sugar production by Brazil, which will depress the sugar price (Meyn and Kennan, 2009). However, the World Bank (2008a) expects sugar prices to stabilise at the current level in the medium term, though future policy processes (such as the reform of the EU Common Sugar Market) may distort these forecasts. Prices in the EU and US

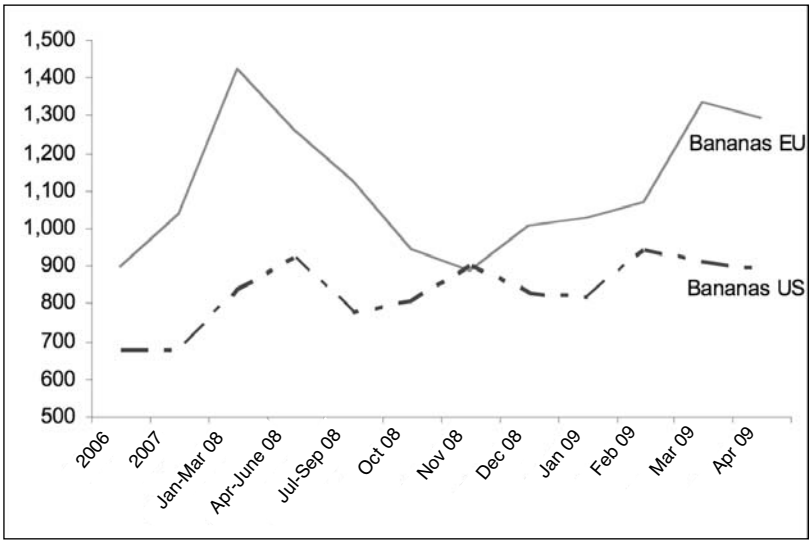
Table 3. Summary of most important small states' exports, 2-digit code

SITC Rev. 3 2-digit code	SITC 2-digit description	No. of different 3-digit codes identified	Value (US$ m)
Total		**42**	**30,544**
0 – Food and live animals		**9**	**1,898**
03	Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	3	850
04	Cereals and cereal preparations	1	10
05	Vegetables and fruit	3	239
06	Sugars, sugar preparations and honey	1	797
08	Feeding stuff for animals (not including unmilled cereals)	1	1
1 – Beverages and tobacco		**2**	**124**
11	Beverages	2	124
2 – Crude materials, inedible, except fuels		7	2,804
22	Oil-seeds and oleaginous fruits	1	6
24	Cork and wood	1	100
27	Crude fertilisers, other than those of division 56, and crude minerals (excluding coal, petroleum and precious stones)	2	17
28	Metalliferous ores and metal scrap	3	2,682
3 – Mineral fuels, lubricants and related materials		**3**	**16,340**
33	Petroleum, petroleum products and related materials	2	9,993
34	Gas, natural and manufactured	1	6,347
4 – Animal and vegetable oils, fats and waxes		2	9
42	Fixed vegetable fats and oils, crude, refined or fractionated	2	9
5 – Chemicals and related products, n.e.s.		7	913
51	Organic chemicals	1	85
53	Dyeing, tanning and colouring materials	1	1
54	Medicinal and pharmaceutical products	1	143
55	Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations	2	329
57	Plastics in primary forms	1	141
59	Chemical materials and products, n.e.s.	1	215
6 – Manufactured goods classified chiefly by material		**4**	**4,629**
65	Textile yarn, fabrics, made-up articles, n.e.s., and related products	1	4
66	Non-metallic mineral manufactures, n.e.s.	1	3,999
67	Iron and steel	1	1
68	Non-ferrous metals	1	624
7 – Machinery and transport equipment		**4**	**1,479**
76	Telecommunications and sound-recording and reproducing apparatus and equipment	1	19
77	Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof	3	1,460
8 – Miscellaneous manufactured articles		**3**	**1,309**
84	Articles of apparel and clothing accessories	2	1,309
89	Miscellaneous manufactured articles, n.e.s.	1	0.01
9 – Commodities and transactions not classified elsewhere in the SITC		**1**	**1,039**
97	Gold, non-monetary (excluding gold ores and concentrates)	1	1,039

Source: See Table 2

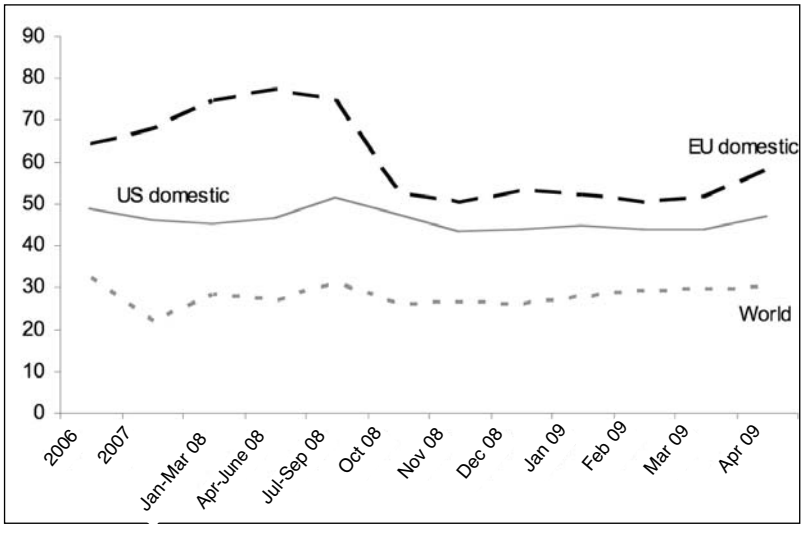
markets followed a similar evolution (although at higher levels given the distorted markets), with small price rises since November 2008.

Figure 11. Price developments in the banana market (US$/mt)



Source: World Bank pink sheet

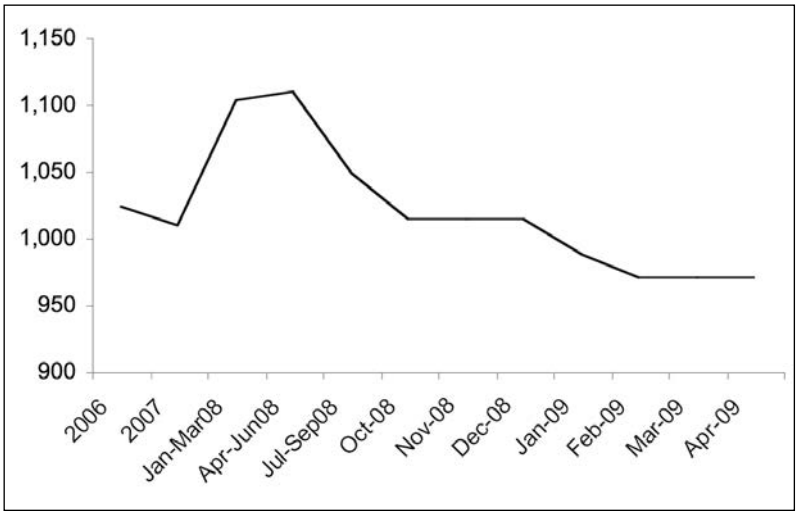
Figure 12. Price developments in the sugar market (US¢/kg)



Source: World Bank pink sheet

On the other hand, prices of fish and crustaceans (which are particularly important for The Bahamas, Maldives and Seychelles) have fallen abruptly since the peak of April–June 2008 (Figure 13). This is consistent with these products being luxury goods, the consumption of which is highly dependent on income.

Figure 13. Price developments of fish and crustaceans (US¢/kg)

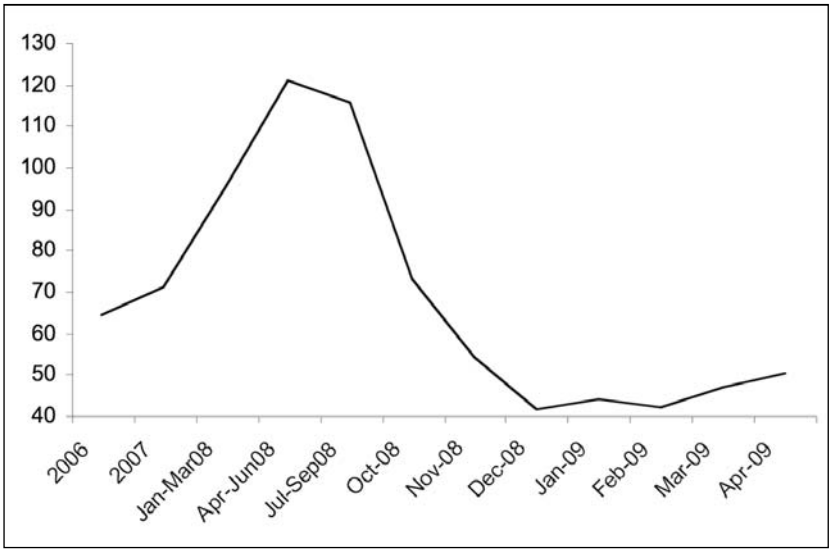


Source: World Bank pink sheet

Prices of metals and minerals follow a general declining pattern, consistent with their use as inputs for other industries. As global production slows, so does the demand for metals and minerals. After a continuous increase since 2005, the crude oil price fell dramatically after October 2008, due mainly to declining production, especially in the USA (Figure 14). It reached a trough at the end of 2008, since when it has bounced back, although to only half the level of the peak of October 2008. The World Bank (2008b) expects this to be temporary, and oil prices are projected to recover and stabilise at about US$80–85/barrel by 2015/20. While oil is a major export for a handful of small countries (Brunei Darussalam, Papua New Guinea, Barbados, Belize and Trinidad), it is a key import for the majority of them. Therefore a return to high oil prices is not good news for small states as a whole.

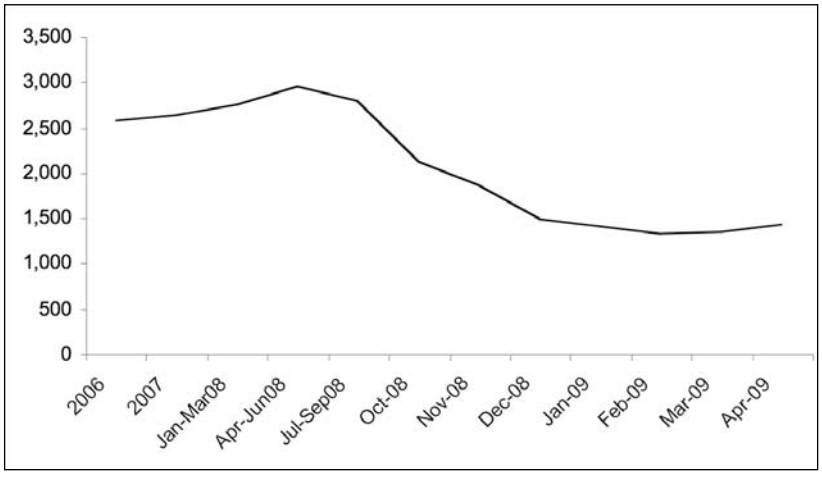
As with oil, the price of aluminium (an important export for Guyana and Jamaica) dropped substantially after the peak in April–June 2008. Its price more than halved before stabilising at around US$1,300–1,400/metric ton (Figure 15).

Figure 14. Price developments of crude oil (US$/bbl)



Source: World Bank pink sheet

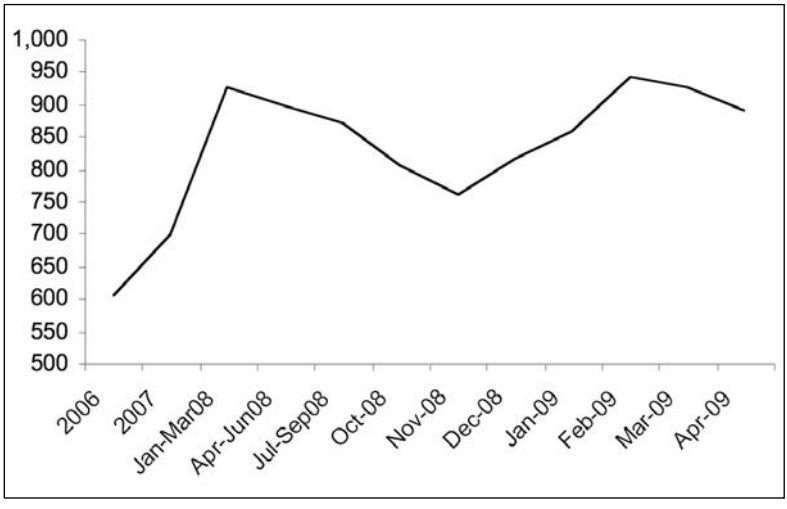
Figure 15. Price developments of aluminium (US$/mt)



Source: World Bank pink sheet

Finally, the price of gold (among the main exports of Guyana and Papua New Guinea) had an opposite pattern to that of most other minerals and metals in that it fell in the second half of 2008 and has bounced back since November 2008, reaching record levels of around US$950/troy ounce in February 2009 – double its level in 2005 (Figure 16). This reverse evolution of price relative to other minerals is mainly due to gold's function as a store of value in a period of currency volatility.

Figure 16. Price developments of gold (US$/troy oz)



Source: World Bank pink sheet

As international price data are not available for a large number of goods exported by small states, we use EU and US import data to provide a rough estimate of the effects of the global financial crisis on these exports. We calculate year-on-year variations in import values for the periods September 2008–February 2009 (March for the USA) and December 2008–February 2009 (March for the USA). These are reported in Annex Table A3. The variation is generally more negative for the last trimester than for the semester, confirming the intensification of the crisis in recent months. The changes in import values are similar in the USA and EU, although some differences, sometimes substantial, do emerge. As these two markets represent a substantial share of total demand in all sectors, an average of the variations across them is a good approximation of export behaviour in the individual sectors. For each sector *s* we take the average of the import value variation over three and six months:

$$\hat{g}_s = [\Delta m_s^{EU}(Dec–Feb) + \Delta m_s^{US}(Dec–Feb) + \Delta m_s^{EU}(Sep–Feb) + \Delta m_s^{US}(Sep–Feb)] \quad (1)$$

where Δ is the year-on-year percentage change and m are imports. We take this value as a first approximation of the extent to which each of the major small states' export sectors is affected by the global financial crisis. The results of this calculation (reported in Table A3) confirm the price developments reported above. Minerals and fuels are the most affected categories (except for gold), followed by manufactured goods, especially agro-industry, and then agriculture. Matching these sectoral results with the sectoral composition of countries' exports we are able to compute an indicator of merchandise trade resilience for each country. This is calculated as follows for each country *j*:

$$TR_s = \frac{\sum_{s \varepsilon S_j} \hat{g}_s \, x \, X_s}{\sum_{s \varepsilon S_j} X_s} \qquad (2)$$

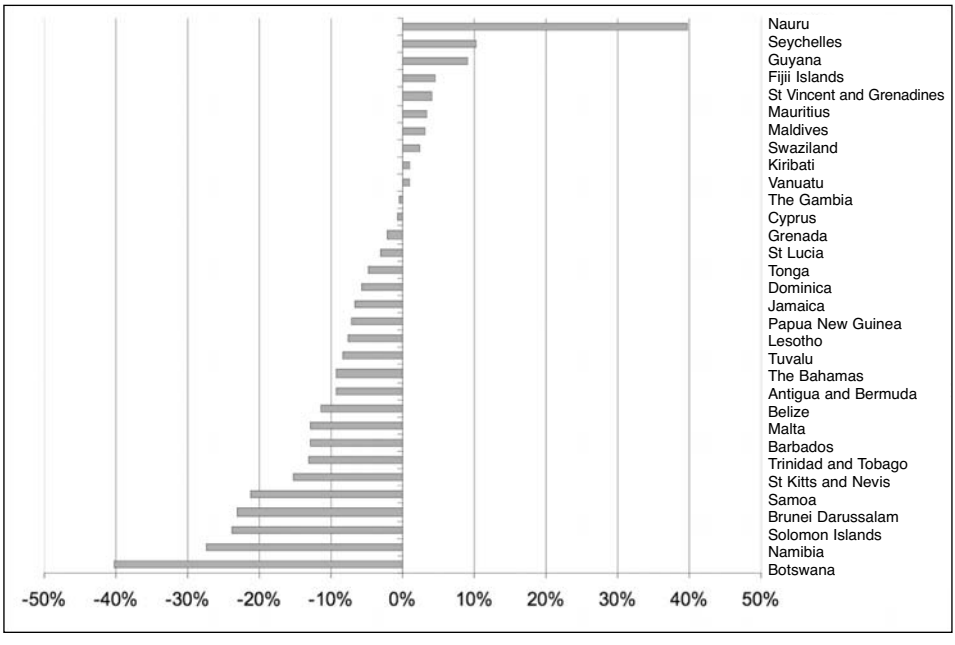
where $\hat{g}$ is computed as in (1), X_s is total export of product s by the country and S_j are all the sectors which country j exports. According to this computation, the merchandise exports of most small countries should drop, although the variation is significant (see Figure 17). Mineral and fuel exporters such as Botswana, Namibia, Brunei Darussalam and Trinidad should be particularly badly affected. On the other hand, Nauru's exports are projected to be very resilient, as its main export is fertiliser, which has achieved a sustained growth over the past few months. Note, however, that export data for Nauru are not available in the UN's Comtrade database and thus we base our calculations on import data from the rest of the world, which are likely to be less precise. Another more important note of caution about these results is that they are based on the assumption that countries' export behaviour in a 3-digit sector mimics that of US and EU imports in the same sector. Although the 3-digit classification is already quite detailed, each sector still includes a number of sub-sectors whose export dynamics are not necessarily the same. Moreover, large countries' imports in a sector may be driven by large countries' exports in those sectors, the pattern of which could be different from those of smaller exporters. These limitations are more likely to affect the absolute than the relative values of the projected changes; as long as they are kept in mind, we believe the results are a good indication of how small countries' exports may be affected.

In much the same way, we also compute an indicator of trade resilience (TR) based on small countries' export markets and their expected performance. This is based on the idea that potential demand for a country's exports is driven by its trading partners' income as well as by its types of exports. Similarly to the index developed in (2), we compute the following export markets-based merchandise trade resilience index for each country j:

$$TR_s = \frac{\sum_{i \varepsilon I_j} \hat{g}_i \, x \, X_i}{\sum_{i \varepsilon I_j} X_s} \qquad (3)$$

where i is the export market and I_j is the vector of all export markets (for which projected growth data are available) of country j; $\hat{g}_i$ is the forecast growth rate of country i according to the IMF's latest projections IMF (2009b) and X_i is the total value of merchandise exports of country j to country I (based on the latest year for which data are available in Comtrade).

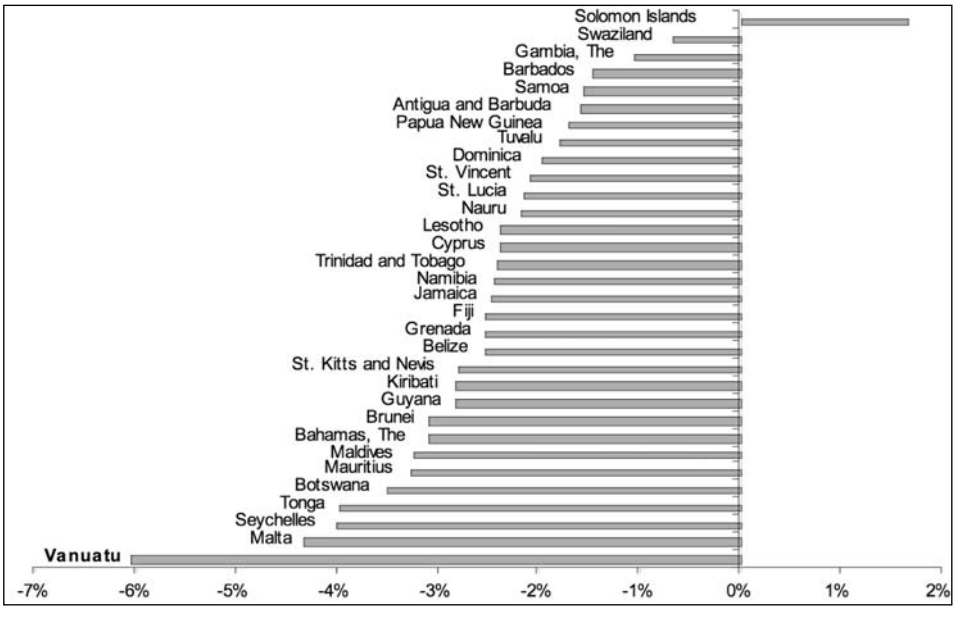
Figure 17. Projected changes in exports on the basis of sectoral composition



Source: Authors' elaboration (see main text)

The basic assumption of this index is an income elasticity of all imports for all countries of 1. This is obviously implausible as it should depend on the types of products imported, among other things. However, we believe that the index thus calculated still provides a good indication of the potential effects of dwindling incomes in the major importing countries.[10] Figure 18 presents the results of the index computation in terms of expected variation in merchandise exports. All small states except Solomon Islands are predicted to have negative export growth in 2009, according to this export market-based index. This follows the fact that their major importers all have negative projected rates of growth for 2009. The relative resilience of Solomon Islands is due to the effect of China, which accounts for around half of the country's exports and was predicted to grow substantially even in 2009.

Figure 18. Projected changes in exports on the basis of export market composition



Source: Authors' elaboration (see main text)

It is useful to plot these trade resilience indicators in a two-dimensional space in order to give a more complete picture of how exports are expected to fare in individual small states. We do this in Figures 19a and 19b. We separate the two, as the latter shows four influential observations which would shrink the differences among other countries if plotted in the same plane. The figures are divided into quadrants by two lines drawn at the median value of each index. Therefore the upper-right quadrant includes countries whose exports are expected to be most resilient, while the opposite is the case for the lower-left quadrant. Countries in the lower-right quadrant are exporting to markets which are relatively unaffected by the crisis (high TR_i index), but their exports are concentrated in sectors that are relatively highly affected (low TR_s index). The opposite situation is represented by the upper-left quadrant.

Figure 19a. Trade resilience indices of small countries

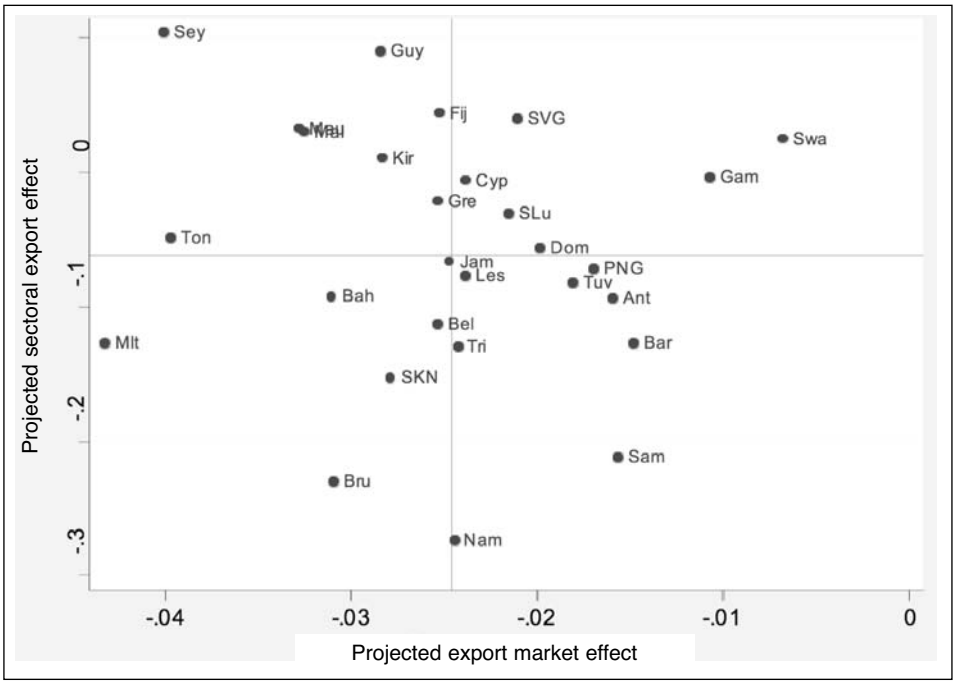
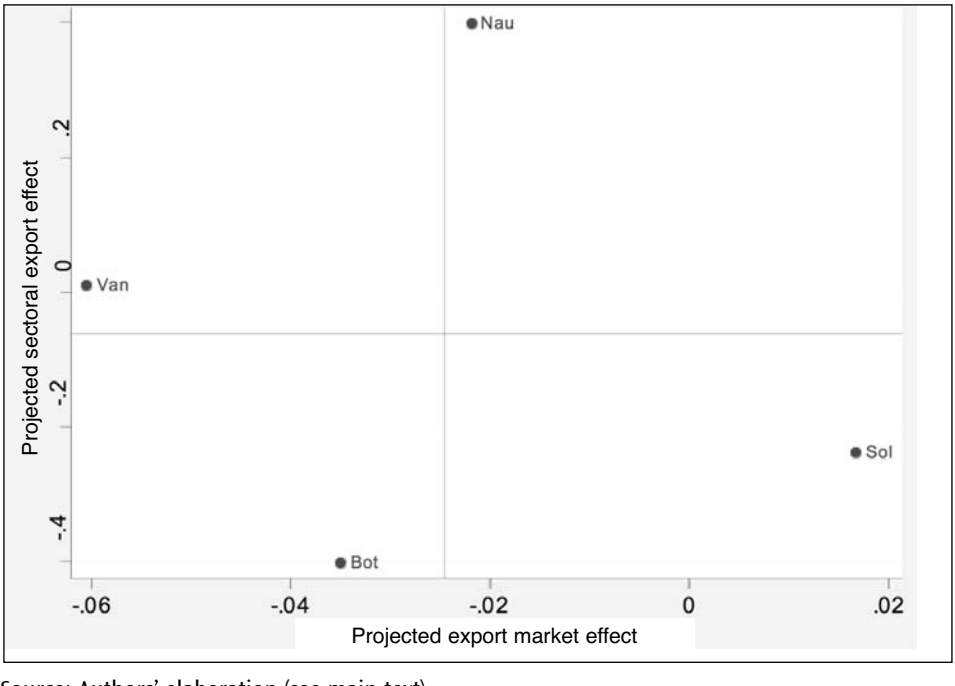


Figure 19b. Trade resilience indices of small countries, influential observations



Source: Authors' elaboration (see main text)

4.2 Trade in services

Unlike for trade in goods, there is little recent systematic data on trade in services that can be used to predict the impact of the global financial crisis on exports of services from small states. Moreover, data on trade in services tend to be less reliable and complete than those on trade in goods, given the intangible nature of the trade. For example, existing data usually cover only trade in services delivered through Mode 1 (cross-border delivery) and Mode 2 (services consumed abroad), but not through Mode 3 (services delivered via commercial presence) and Mode 4 (temporary movement of persons).[11] Given the relative importance of services exports for small states, we try to provide some sense of the possible impact of the crisis on these exports by resorting to indirect evidence.

As discussed in Section 3, Borchert and Mattoo (2009) provide some suggestive evidence of the resilience of trade in services relative to trade in goods. This is evident in Figure 20a, which shows that the drop in US services imports growth has been around four times smaller than that for imports of goods. However, there are wide variations in the services categories, at least as far as US imports are concerned. Transport and travel appear to be less resilient than other private services trade (Figure 20b), and within the latter sector, financial services are less resilient than other services (Figure 20c). In a nutshell, transport, travel and financial services exports appear to be more affected by the global downturn than other services sectors. Using this distinction between services sectors we can draw some inferences about the possible resilience to the crisis of services exports by small states.

Figure 20a. US imports of goods and services, year-on-year growth (percentage changes of monthly services imports)

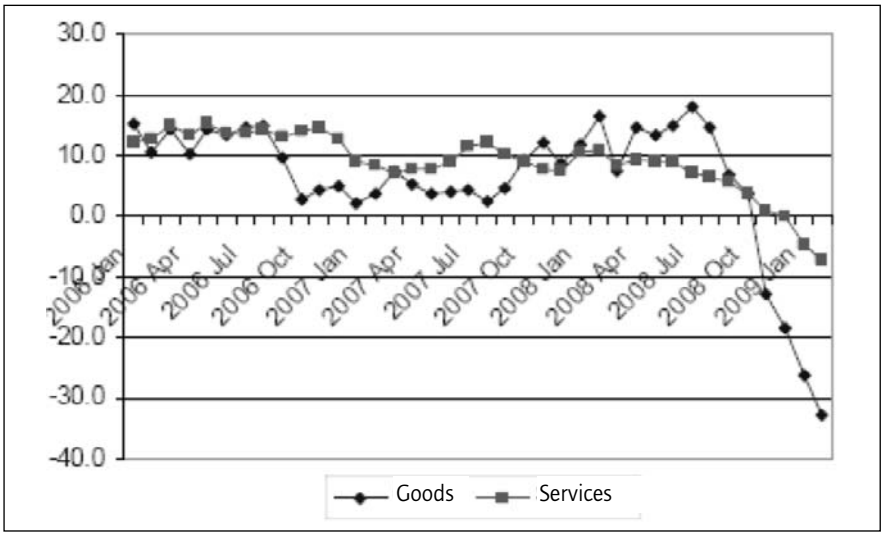


Figure 20b. Sub-categories of services (percentage changes of monthly services imports)

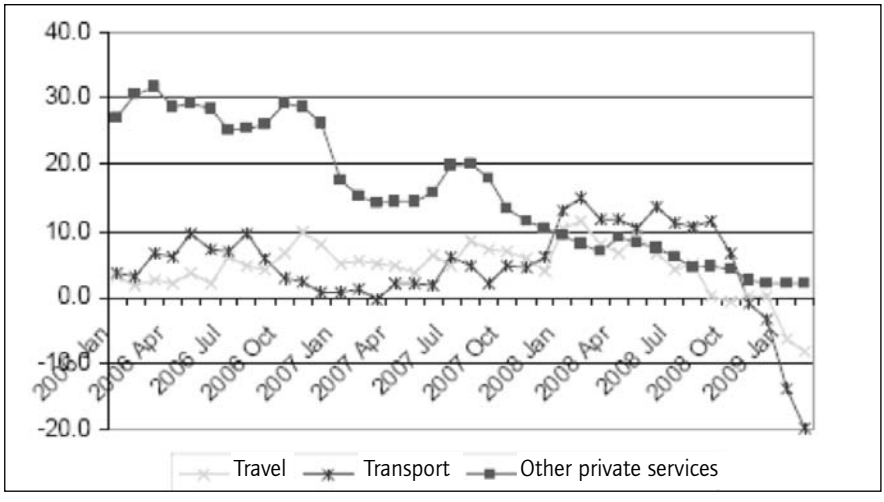
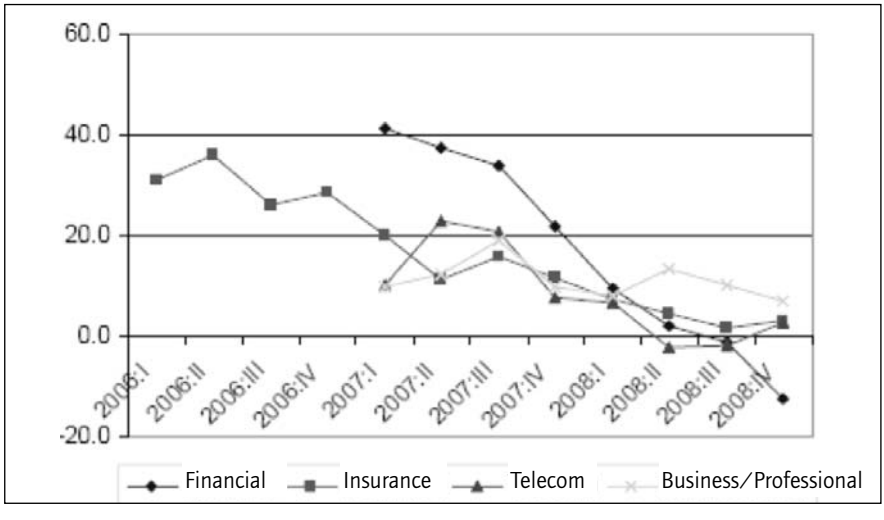


Figure 20c. Sub-categories of 'other private services' (percentage changes of monthly services imports)



Source: Borchert and Mattoo (2009)

We classify small states according to their shares of less resilient exports in total services exports (i.e. transport, tourism and financial services). This exercise is considerably more imprecise than that carried out for exports of goods for three main reasons.

First, services sectors represent larger categories than 3-digit sectors in goods. This means that there is greater heterogeneity in the response of this sector to the crisis. For instance, passenger transport services are very different to goods transport services.

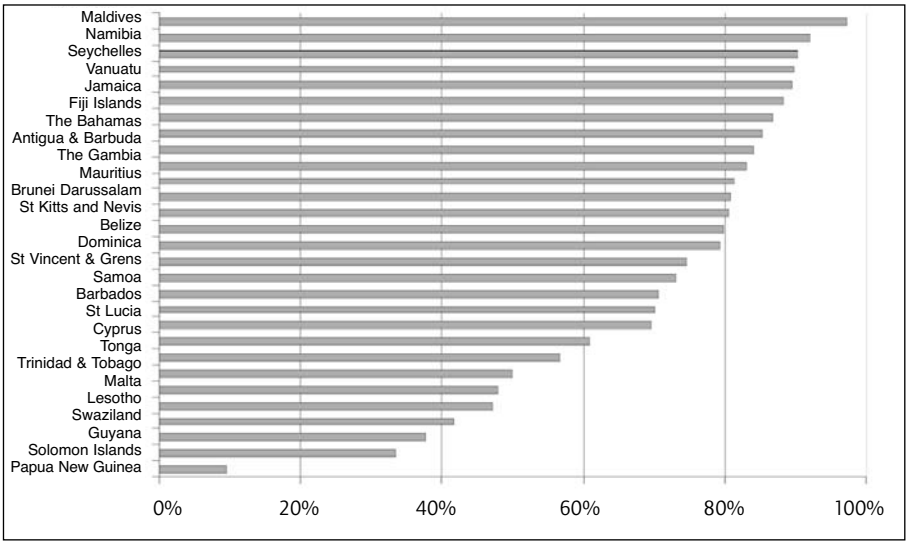
Second, the evidence of the effects of the crisis on the different services sectors is less precise than for goods, as it is based only on US data.

Third, and related to the previous point, the share of services exports captured by the data is likely to be more limited than that for goods, as only Modes 1 and 2 are recorded. In general, the recording of services trade, especially in developing countries, is subject to a large margin of error.

Notwithstanding these limitations, the share of less resilient services exports can provide a useful indication of the relative potential resilience of services exports.

Figure 21 provides the list of small countries ranked in decreasing order of this share. These sectors represent most services exports in the majority of small states, mainly because tourism is such an important export for many of them. In particular, small countries in the Caribbean and the Pacific (with important exceptions such as Papua New Guinea) are particularly vulnerable to the effects of the global downturn on their services exports. As noted above, small countries for which tourism constitutes a large proportion of their services exports are also the countries that export most services. Thus their economies may be particularly vulnerable to the decline in tourism exports associated with the global financial crisis. The main exception to this rule is Namibia, which has the second-highest share of less resilient services exports (due to tourism), but for which these exports account for only a small fraction of its economy.

Figure 21. Share of less resilient services in total services exports



Source: UNCTAD (2009)

Given the importance of tourism in small countries' exports, it is worth looking at the (scant) evidence of how the industry has been faring in those countries during recent months. In general, this evidence confirms the proposition that tourism is a

luxury good and that therefore the global downturn has had a significant impact on its growth.

The Caribbean

Tourist arrivals in the Caribbean are declining rapidly everywhere, possibly also due to the reliance of the region on the American market. In St Lucia, the tourism sector saw a reduction of 8.2 per cent in the number of stay-over visitors in the period September 2008–April 2009 compared with the same period in the previous year. The trend worsened in the period September 2008–March 2009. Arrivals from the USA were projected to decline by 20 per cent from June to October 2009 (te Velde *et al.*, 2009b).

The situation is not very different elsewhere in the region. Activity in the tourism sector slowed down markedly in the second half of 2008 in Antigua and Barbuda. As a result of this, the sector expanded by only 1.5 per cent in 2008, a much lower figure than the initial projection of 8 per cent after the first six months of 2008.[12] According to the Central Bank of the Bahamas (2009), there was already a drop of 3.2 per cent to 2.7 million in total tourist arrivals during the first seven months of 2008.

Indian Ocean region

In Mauritius, monthly tourist arrivals experienced a drop of 10 per cent between the first quarter of 2008 and the first quarter of 2009 (te Velde *et al.*, 2009b). This was the first drop of this kind in recent years. Seychelles reported a 15 per cent year-on-year drop in tourist arrivals in January 2009 and the government estimates that revenue from the tourism industry will drop by 25 per cent in 2009.[13] In Maldives, the growth forecast has also been revised downwards from previous predictions to a negative of 11 per cent based on actual tourist arrivals for the first two months of the year (Government of Maldives, 2009).

Pacific Ocean region

In Samoa, tourist arrivals were already down in 2008 compared with the year before, with a small decrease in numbers of 0.5 per cent, but a larger drop in tourism receipts, which fell by an estimated 7.6 per cent in real terms in the year. This situation continued to worsen in the first four months of 2009.[14]

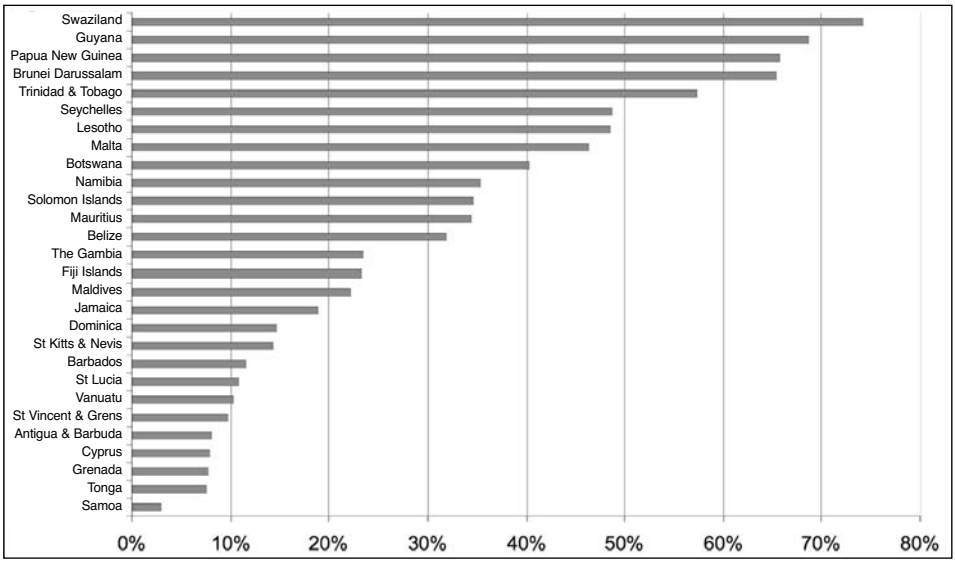
Perhaps the most notable exception to this trend is Vanuatu. Tourist arrivals to the country have held up well and cruise arrivals recorded a record increase of 200 per cent in April 2009 compared with April 2008 and an increase in arrivals by air of 21.3 per cent in the same month. Part of this resilience is probably the result of a diversion of tourists away from Fiji Islands (due to its unstable political situation and adverse weather conditions) towards other destinations in the Pacific. Another explanation is the substitution by Australian tourists of short cheaper holidays to the Pacific for long-haul holidays in Europe. In addition, the proximity of Vanuatu to the key markets of Australia and New Zealand, combined with increased international

promotion and competition in the airline industry, has made transport costs to Vanuatu from its main markets highly competitive. Finally, the reduction of fees levied by the government on cruise ships has contributed to an increase in the number of ships calling at Vanuatu. This example shows that resilience – defined as the policy-induced ability to withstand shocks (Briguglio *et al.*, 2006) – can be built to some extent even in very exposed export sectors such as tourism.

4.3 How do trade effects impact on the domestic economy?

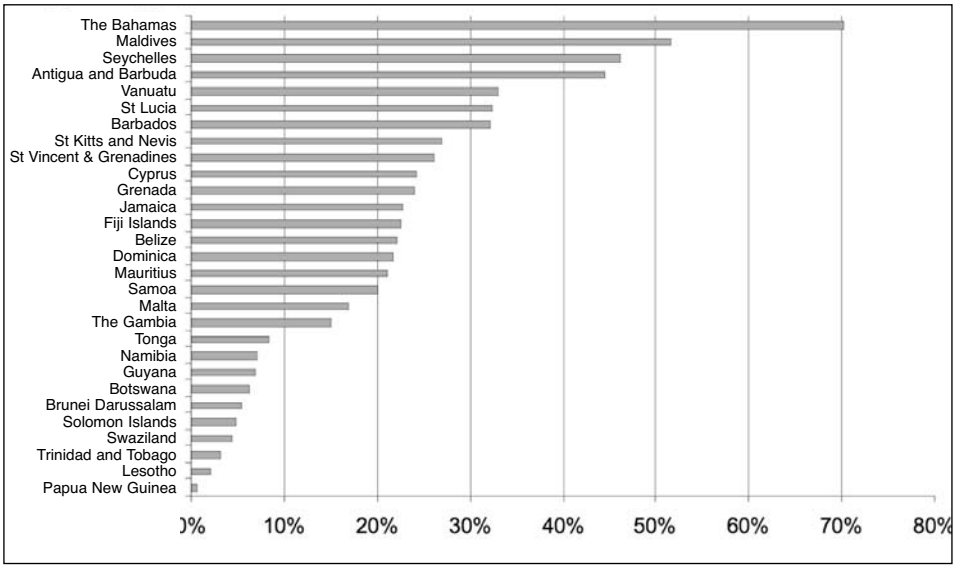
The discussion above has shown that the effects of the global financial crisis on trade prospects in small states are likely to be substantial, although there is a fairly large variability across states. The extent to which these trade effects will impact on GDP growth and development is a very different and much more complex question. In general, other things being equal, the effects on the economy will obviously be larger the higher the dependence on exports. But other characteristics matter as well, such as the share of value added in total exports (i.e. how much of the value of the export is retained in the economy), the distribution of the value across factors of production and the level of employment dependent on exports (both directly and indirectly). It is beyond the scope of this study to explore these linkages in greater detail. However, it is worth examining the potential size of the trade channel of the crisis on the economy as a whole. We do so by using the share of exports of goods in GDP and the share of less resilient services (as defined above) in GDP. Figure 22 presents the former and Figure 23 the latter.

Figure 22. Share of merchandise exports in GDP



Source: *World Development Indicators* (*2009*)

Figure 23. Share of less resilient services exports in GDP



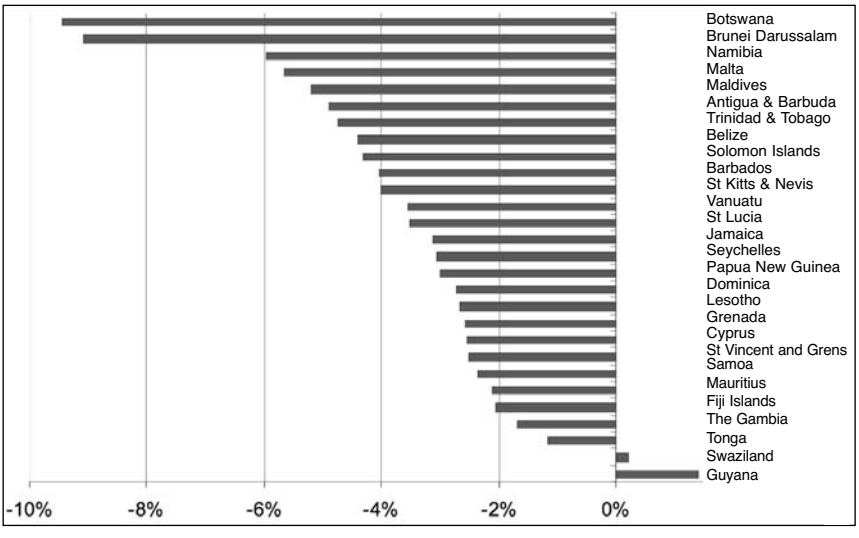
Source: Authors' elaboration on UNCTAD (2009) and *World Development Indicators* (*2009*)

We then use these shares and the trade effects of the crisis computed above to estimate the possible direct impact of the trade channel of the crisis on GDP. In order to do this, we take the average of the two merchandise trade resilience indices above and multiply it by the share of merchandise exports in GDP (from Figure 22). We then add the share of 'less resilient' services in GDP (from Figure 23) multiplied by –0.15. The latter is based on the assumption that these services would shrink by 15 per cent on average (while the other services would stay unchanged). The multiplicity of strong assumptions underlying this computation makes the results subject to large margins of errors and means that caution should be used in interpreting them. Figure 24 presents the results (as a share of GDP), which also represent a sort of summary of the various estimations in the study.

Most small countries are predicted to have fairly sizeable negative effects from the drop in exports induced by the global financial crisis. The only countries which are expected to have non-negative effects are Swaziland and Guyana, due to their dependence on basic agricultural exports such as sugar, rice and essential oils, and their low reliance on affected services exports. At the other end of the spectrum, countries that are heavily reliant on minerals and fuels, such as Botswana and Brunei Darussalam, are expected to be the most negatively affected. Also, small states that rely heavily on tourism, such as Malta, Maldives and most Caribbean and Pacific countries, are likely to be particularly heavily penalised. As shown above, there are exceptions to the rules assumed by these predictions, such as Vanuatu with its resilient tourism sector. Rather than calling into question the projections presented, we would

argue that this exception illustrates the possibilities of countervailing (to some extent) the negative effects of the crisis.

Figure 24. Possible trade channel effects of the crisis on GDP (percentage of GDP)



Source: Authors' elaboration (see main text)

A more indirect trade effect of the crisis has to do with falling government revenues. In developing countries (small states are no exception) a large share of these usually come from trade-related taxes. Falling export and import revenues may exert pressure on government expenditure (IMF, 2009a). This may further reduce the fiscal space that governments in developing countries have to develop counter-cyclical policies, including the expansion of social spending to protect their more vulnerable citizens.

The decline in trade may also have effects on poverty. The immediate impact on the poor depends mainly on the employment effects and direct linkages of export-oriented industries to domestic industries. But even in the case of industries that are fairly isolated from the rest of the domestic economy, such as mining, there can be negative spill-overs on the poor via reduced government revenues, as argued above. In countries that export agricultural commodities, falling commodity prices would cut into rural employment and incomes, thereby increasing rural poverty. The urban poor, however, may benefit as food and energy prices decrease (IMF, 2009a).