Chapter 3

Two case studies in Uganda and Azerbaijan

The insights of the econometric work are supplemented by two case studies: Uganda and Azerbaijan. The case studies aim at providing illustrations of the mechanisms highlighted by the econometric work and the importance of some variables that econometric work could not capture because of data limitations.

Econometric work provides important insights allowing to identify and rank the various binding constraints to trade expansion and to distinguish their impact on both imports and exports. This is crucial for effectively sequencing both trade reforms and aid-for-trade support. However, an econometric approach cannot test all potential binding constraints because of the limited size of some country groupings and because of inherent data problems. For example, the severity of some likely binding constraints such as time to trade, burden of customs procedures, and non-tariff barriers could not be quantified econometrically either because data are not available or only available for a limited time-span or for a limited number of countries. Moreover, although country groupings are designed to capture a crucial specificity, countries within each group are often very different and these other specificities are ignored.

The insight of the econometric work is thus supplemented in this chapter by two case studies that cover all the country groupings considered: Uganda (a landlocked country as well as a small and vulnerable economy) and Azerbaijan (a landlocked country as well as a commodity exporter). The strength of the case study approach lies not so much in its ability to draw generalised findings (this is the strength of the econometric work) as in its ability to gain deeper insight into the binding constraints faced by a country than can be done through cross-country econometric work.

Uganda Case Study

A landlocked, small and vulnerable economy

The experience of Uganda with trade reforms highlights three salient points. First, it is important to identify the most binding constraint to trade in order to adequately sequence the reforms and have a meaningful impact on trade and on growth. This is done by analysing the reasons for the failure of the 1990s reforms and the success of the trade reforms of the 2000s. This comparison illustrates the second point, namely the importance of the complementary policies. The trade reforms of the 1990s did not result in trade expansion and economic growth because they did not address the most binding constraints (they were limited to tariff reforms). This contrasts with the broader reforms of the 2000s, which were successful in leading to a sharp increase in trade and significant export diversification. Third, Uganda shows the importance of factors such as corridors, time costs, regulation of the transport sector, and customs procedures – factors that could not be captured by the econometric analysis of landlocked countries and could throw light on why the transport infrastructure variables did not explain trade performance.

Failure in the past : Tackling the wrong binding constraints

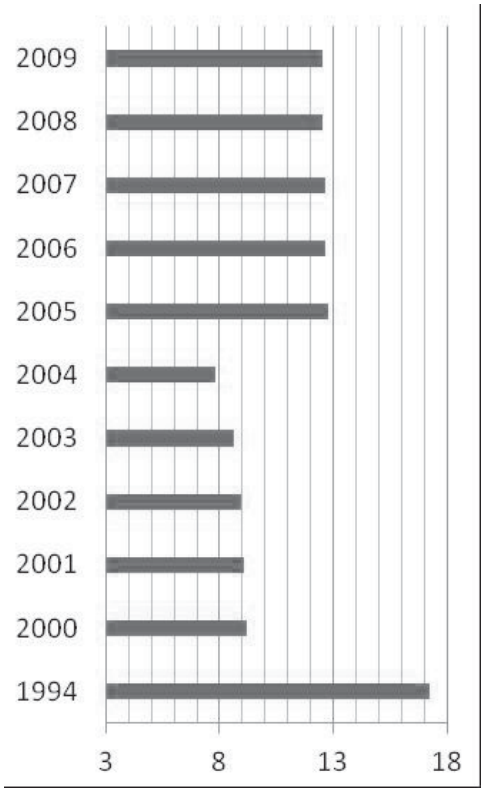
During the 1990s, Uganda substantially liberalised its trade regime, while maintaining macroeconomic stability. The tariff structure was simplified, the average import tariff dropped from 17% in 1994 to 9% in 2000 (Figure 3.1) and taxes on exports were eliminated. While these policy measures were expected to stimulate the economy, economic growth was disappointing.

Uganda's reform in the 1990s illustrates the point made in the previous chapter that some reforms fail because of flaws in their design. In this case the flaw was a mistake in identifying the most binding constraints to trade. Consistent with the econometric results, this disappointing growth impact could be attributed to the fact that the trade

regime was not the main constraint on trade. One of the biggest trade constraints was the high transport costs. Milner *et al.* (2000) estimate that the implicit taxation of exports from Uganda reached 77% in 1994; 64% was due to overland and sea transport and only 13% was associated with customs tariffs.

Figure 3.1 Uganda's applied MFN tariffs

(simple average, 1994-2009)



Source: UNCTAD-TRAINS database.

Time is another major constraint to Uganda's trade. For example, Djankov *et al.* (2010) calculate that if Uganda reduces its factory-to-ship time from 58 to 27 days, exports may potentially increase by 31%. Consistent with the literature on the impact of time delays on trade, they also find that time delays have a much bigger impact on exports of time-sensitive goods, such as perishable agricultural products.

In addition to high transport costs and time costs, unpredictability in the delays and inaccurate information hamper competitiveness in the global market. The role of uncertainty did not receive much attention but Arvis *et al.* (2007) state that "transportation costs only explain one part of the real impact of being landlocked. Delays and even more importantly low degree of reliability and predictability of services create massive disincentives to invest and higher total logistics costs", and, as a result, "are even more important in constraining their trading and thereby growth prospects."

The trade reforms of the 1990s did not result in the expected trade expansion and economic growth because Uganda did not address the most binding constraints and

focused on a less binding problem. Being a small landlocked country, the bigger constraints to trade were the costs of transport, time, and uncertainty and not the trade regime. This experience highlights the importance of identifying the most binding constraints and appropriately sequencing reforms.

Sources of the success of the recent reforms

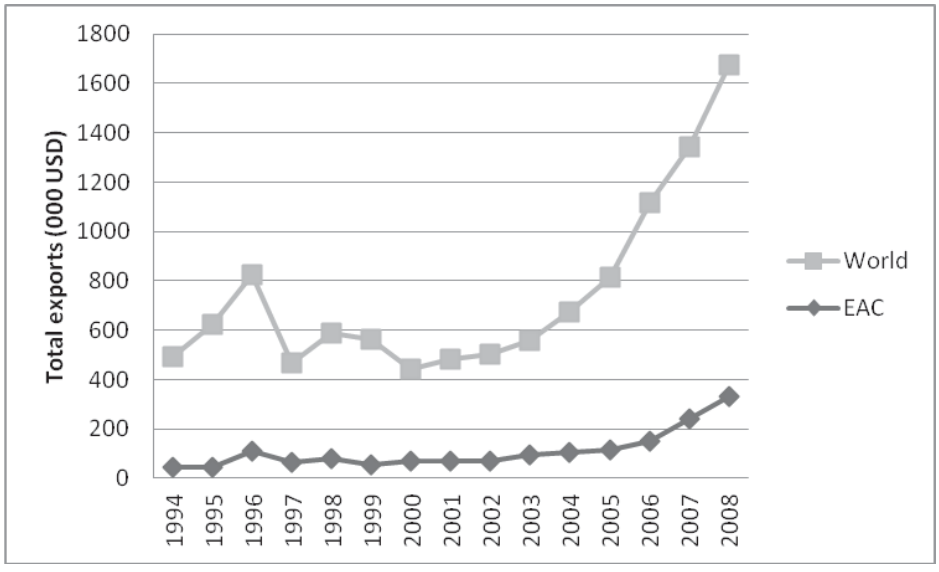
In the 2000s, Uganda launched a broader successful package of reforms that relied on trade as an engine for growth. These reforms diversified exports and reduced transport costs and time to trade.

Export diversification

Regional integration has played a pivotal role in diversifying exports and, reducing transport costs, including transit times. Uganda has actively participated in regional trade agreements notably the Common Market for Eastern and Southern Africa (COMESA) and the East Africa Community (EAC).[1] Traditionally, the European Union was the largest market for Uganda, but COMESA countries have overtaken the EU. In 2007, COMESA accounted for 37.9% of total exports and the European Union for 24.3%. The increase in exports to the EAC is reported in Figure 3.2. As a result of regional integration, Uganda has been able to improve access to sub-Saharan African markets, so that trade with these countries has substantially increased. It is noteworthy that regional integration coincided with an increase in inward foreign direct investment, which almost tripled from USD 295 million in 2004 to USD 799 million in 2009.

Figure 3.2 GDP per capita and trade openness of Uganda

(1994-2008)



Source: Author's calculations based on COMTRADE database

Product diversification is as important as geographical diversification for exports. Traditionally, coffee has been Uganda's main export. As illustrated in Table 3.1, export receipts from coffee were the largest in both 1995 and 2008. However its importance has decreased in absolute and relative terms. Not only export receipts from coffee decreased over this period but, testifying to the diversification process, export receipt

from coffee which in 1995 were 12 times larger than receipts from the second largest export commodity, were only four times larger in 2008. Non-Traditional Exports (NTE), such as flowers, fruits and vegetables, have taken over traditional exports since 2001 and the total share of export earnings from NTEs rose from 14% in 1991 to 70% in 2007. The considerable diversification of exports protected the economy from the adverse effects of volatility in international prices of coffee and cotton as well as the unstable global economic conditions and contributed to GDP growth. Figure 3.3 shows the positive correlation between GDP per capita and export concentration during the period 1999-2008.

Table 3.1 Export diversification of Uganda

(in thousands of 2008 USD)

Products	1995 Rank	2008 Rank	1995 Value	2008 Value
Coffee	1	1	$487,662	$403,138
Fish	2	2	$39,211	$107,942
Gold	3	24	$36,160	$8,439
Maize (corn)	4	29	$26,199	$6,256
Vegetables, leguminous dried, shelled	5	18	$19,426	$13,569
Hides and skin	6	81	$13,384	$1,161
Tobacco unmanufactured	7	7	$12,378	$42,470
Cotton	8	154	$11,432	$268
Oil seeds and oleaginous fruits, n.e.s.	9	15	$8,506	$15,796
Soaps	10	13	$3,970	$20,584

Source: Easterly and Reshef (2010)

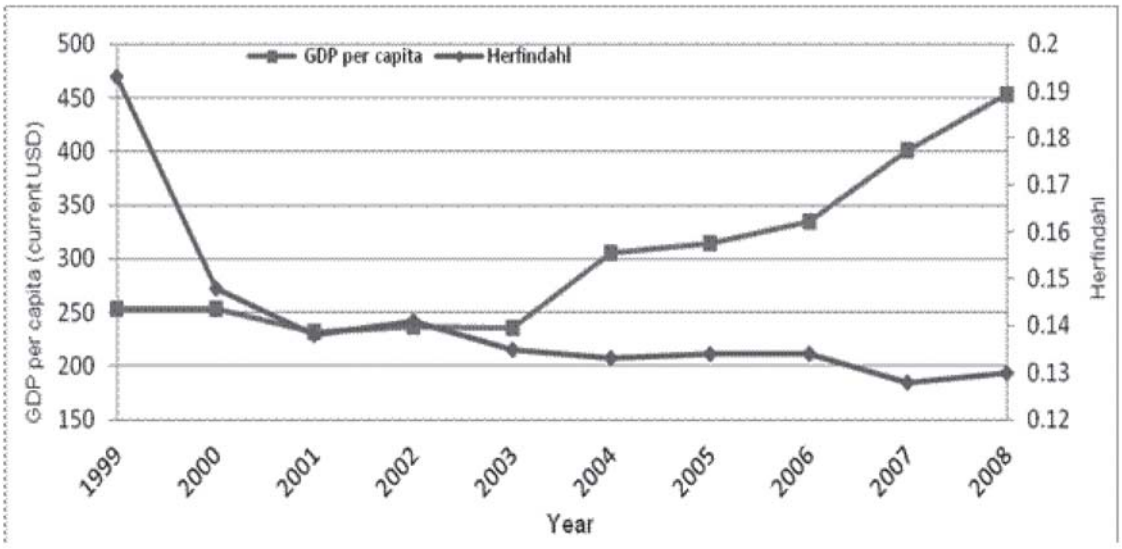
Participating in the EAC was a big step forward in addressing the constraint of high trade costs on a regional level. Although the adoption of the EAC Common External Tariff in 2005 led to an increase in tariffs for imports to Uganda (Figure 3.1), exports continued to perform well (Figure 3.2) mainly because of the increased volume of intra-regional trade and improvement of customs processes and trade logistics.

Transport and time costs

Being landlocked has a significant effect in raising transport costs and despite efforts to reduce non-tariff barriers, freight costs remained high in the early 2000s. Rudaheranwa (2006) estimates that the implicit taxation of exports that arise from land transport costs represented 25% in 2003, down from 31% in 1994, while shipping costs rose from 32% in 1994 to 37% in 2000. A possible explanation for the improvement of land transport costs may be the impact of increased regional trade and the improvement of the Northern Corridor.

Figure 3.3 Export concentration and GDP per capita of Uganda

(1999 - 2008)



Note: The Herfindhal index is calculated at the HS-4-digit level

Source: Author's calculation based on WDI and COMTRADE databases

The Northern Corridor links Burundi, the Democratic Republic of Congo, Rwanda, and Uganda to the Kenyan port of Mombasa. It is vital for Uganda as 95% of its external trade passes through the port of Mombasa. About 90% of this cargo travels by road along this corridor with the remaining 10% by rail. As of 2006, various aid-funded projects, such as the World Bank's "East Africa Trade and Transport Facilitation Project", aimed at tackling the delays plaguing the corridor. According to the World Bank (2011), these complementary policies led to a reduction in transit time at borders from three days to three hours, and in the transit time along the Mombasa-Nairobi-Kampala section of the corridor from 15 to 5 days.

Improvements in road infrastructure contributed to the reduction in the time to trade and in delays, which both have monetary costs for traders. The uncertainty that delays create for trade should not be underestimated. Unpredictability discourages trade and may lead to the loss of lucrative business. When unpredictable delays due to transit and roadblocks occur along the way, trucks often arrive at the port after the departure of the ship that was meant to carry the goods. It is important to note that the majority of Uganda's NTEs are time sensitive and perishable agricultural products making time and the conditions of delivery especially critical. This may explain why there was no alternative to air transport for the flower industry. Despite recent reforms, the main source of delays appears to be administrative procedures rather than shortcomings in the availability or quality of the road infrastructure.

The streamlining of customs procedures reduced the time needed to trade. According to the World Bank's *Doing Business* database,[2] the average number of documents to export and import a container declined from 11 to 6 and 18 to 8 respectively between 2006 and 2011. While 42 days were needed to export and 67 days to import in 2006, in 2010 the time to export dropped to 37 days and the time to import

to 34 days. These improvements led to a 29% increase in the *Logistics Performance Indicators* (LPI) sub index for customs which reflect the efficiency of the clearance process.

Other services supporting trade were also improved resulting in an overall increase of the LPI score of 13% (Table 3.2). Notably, the score for the international shipments sub-index, which represents the ease and affordability of arranging international shipments, also improved by 25%. Progress has been more limited in improving infrastructure and shortening the time spent at border crossings with transport-related infrastructure and timeliness in reaching a destination increased by only 8% and 7% respectively.

Table 3.2 Change in score for logistics performance indicators (LPI) of Uganda

(2007-2010)

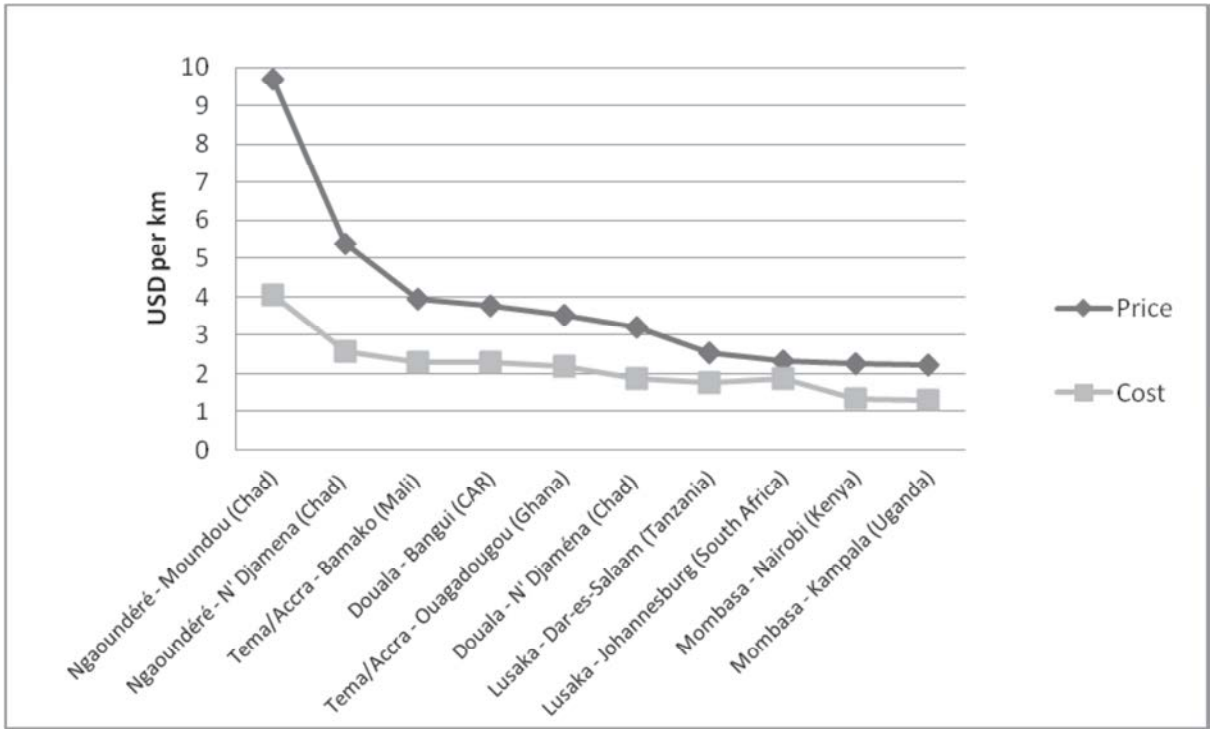
Economy	LPI	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Uganda	13%	29%	8%	25%	2%	5%	7%
Sub-Saharan Africa	3%	-1%	-3%	6%	-2%	8%	6%
OECD Average	0%	0%	2%	-5%	0%	2%	1%

Source: Logistics Performance Index (*www.worldbank.org/lpi*).

Market regulation and competition also affect trade costs. The lack of competition in the transport sector is a source of high transport costs. It is important to differentiate between transport costs (cost to transport service providers) and transport prices (costs to traders). Rallaband *et al.* (2008) show that transport costs are not overly high in Africa but transport prices are relatively high. This is mainly due to official and unofficial market regulations and the market structure of the trucking industry. The route from Mombasa to Kampala has the lowest price and the lowest cost per kilometre among the ten African road corridors they analyse (Figure 3.4).

Figure 3.4 International transport prices and costs along Africa's road Corridors

(from gateway to destination)

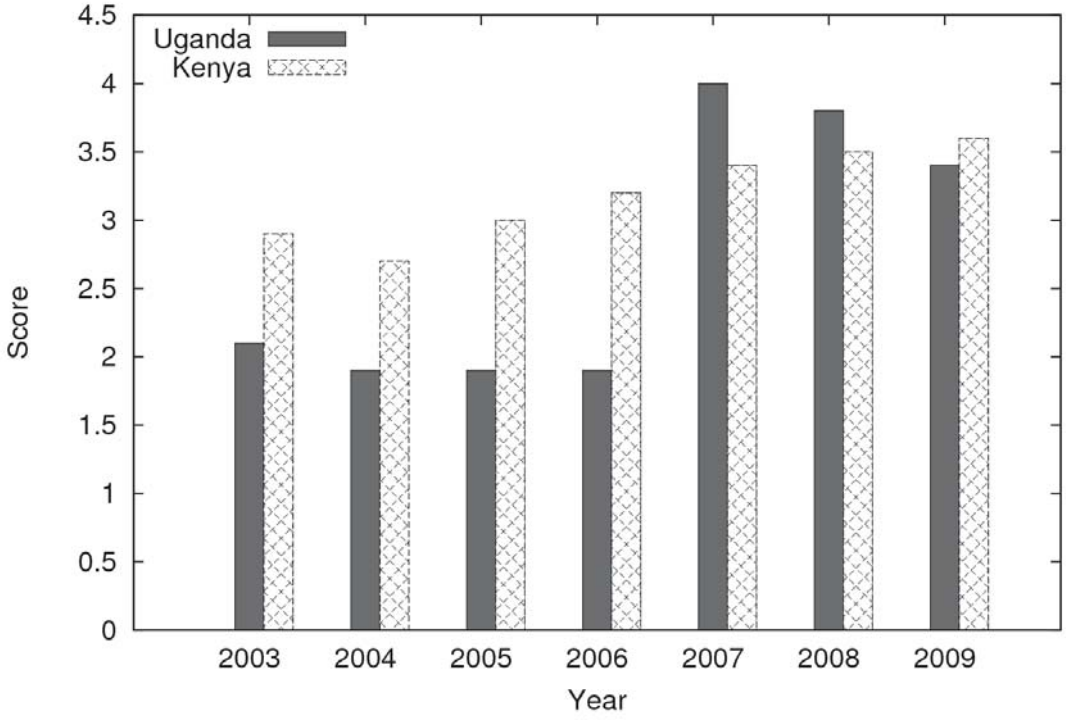


Note: Cost is the sum of the fixed and variable costs

Source: Raballand and Macchi (2008)

Finally to illustrate the importance of infrastructure in transit countries in reducing transport costs discussed in Chapter 2, the improved trade performance of Uganda is in part due to easier access to port facilities and better port efficiency in Kenya. The recent *Global Competitiveness Report 2010-2011* (World Economic Forum, 2010) assesses the ease of access to port facilities for Uganda and the quality of ports for Kenya, and found that the score has improved substantially since 2003 for both countries (Figure 3.5). This is mainly due to the creation of the EAC and the improvement of trade facilities in the port of Mombasa, which has undertaken maintenance operations, system upgrades, and streamlining port procedures. As a result, port congestion, inefficiency and processing times have been significantly reduced, thereby decreasing the level of uncertainty. According to the World Bank (2011), waiting time at the port of Mombasa has been reduced since 2006 from 19 to 13 days.

Figure 3.5 Access to and quality of port infrastructure



Note: The index for Uganda reflects the ease of access to the port while the index for Kenya captures quality of the port infrastructure. The assessment of port facilities goes from 1= extremely underdeveloped to 7= well-developed.

Source: World Economic Forum (various years).

Firms recognise that reforms improved the transportation environment in Uganda. According to the *Enterprise Surveys* reports, 23.7% of exporting firms in Uganda mentioned transportation as a major constraint in 2006, down from 36.1% in 2003.

In conclusion, customs tariffs were not the major barriers to trade in Uganda. As a result, their reduction was not enough to boost export growth in the 1990s and the increase in tariffs under the EAC customs union after 2000 did not stop trade expansion. The most binding constraints to trade were related to transportation, in particular, the time spent at border crossings and the uncertainty arising from unpredictable transport time. Regional integration (EAC) helped lower transport costs and stimulate trade relations with the member countries in its vicinity. Time costs were also lowered as a result of improved customs procedures and better access to ports reduced the time and uncertainty associated with exports and imports. This provides support to the econometric work's finding on constraints to landlocked countries trade (see Chapter 2), notably the importance of reducing time to trade.

Azerbaijan Case Study

A landlocked commodity exporter

The case study on Azerbaijan illustrates how some variables highlighted in the econometric work (*e.g.* export concentration, Dutch disease, governance) affect the trade performance and the development prospects of commodity exporters. This case study

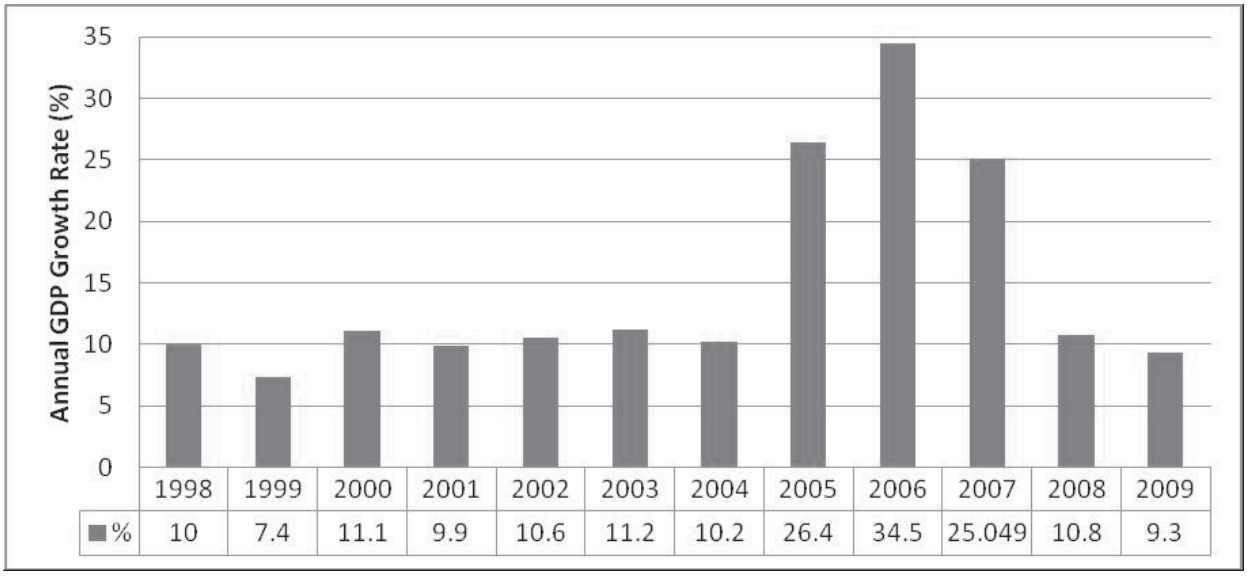
also provides another illustration of how results from cross-country analysis captured by the econometric work can differ across countries with common characteristics – in this case, being landlocked.

Azerbaijan reports that trade is an integral part of its national development plan (OECD/WTO, 2009). It envisages moving toward a diversified and globally integrated market economy (World Bank, 2009). Ensuring sustainable economic development by maintaining macroeconomic stability and the balanced development of the non-oil sector is a strategic goal for Azerbaijan's Poverty Reduction Strategy Paper (SPPRSD) for 2008-2015.

Export diversification : A necessity for sustainable development

Azerbaijan was one of the fastest growing countries in the world during the period 2005-2007 (Figure 3.6) with an average growth rate of 28.6% following massive foreign direct investment in 2003-2004. Its strong economic performance was driven almost entirely by its natural resources sector, with the oil and gas industry attracting the vast majority of foreign direct investment inflows and the engine of trade expansion and economic growth.

Figure 3.6 Economic growth of Azerbaijan (1998-2009)



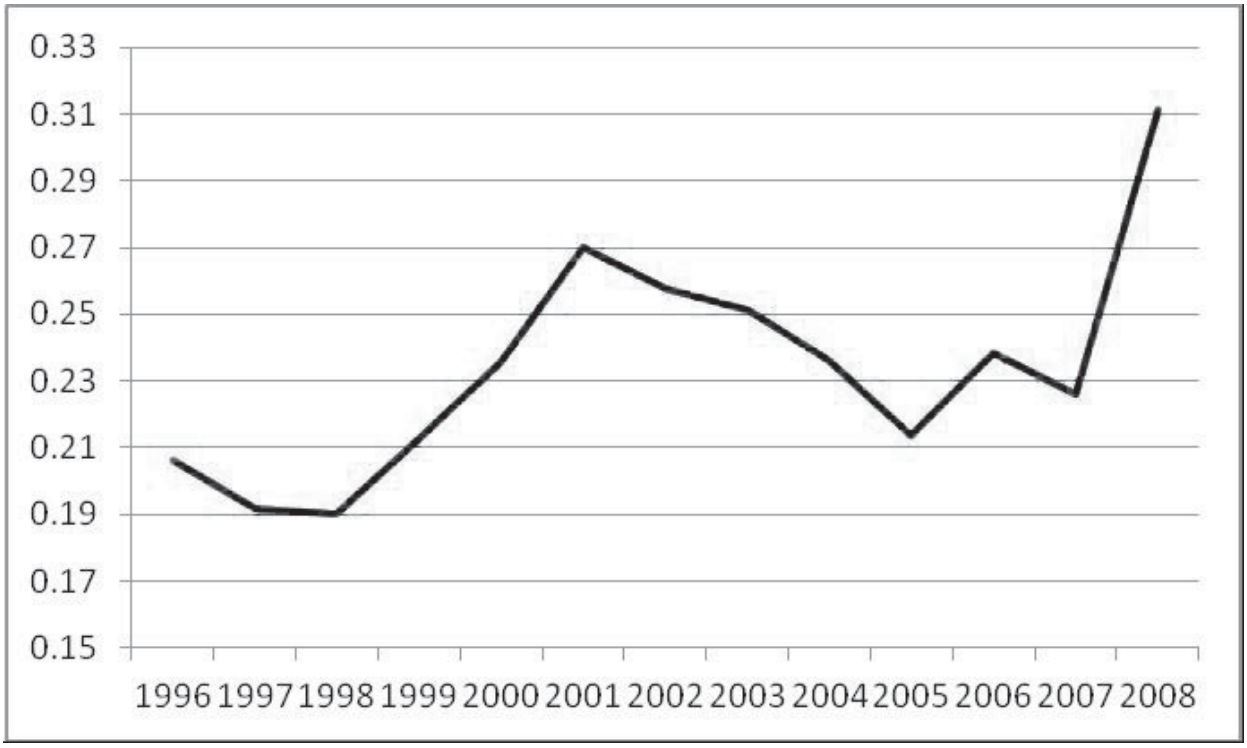
Source: World Development Indicators

As a result, Azerbaijan's export structure is highly concentrated. In 2008, oil exports represented about 95% of the value of the country's total exports (World Bank, 2009). As illustrated in Figure 3.7, Azerbaijan experienced a sharp increase in export concentration from 2006 to 2007. This concentration exposes the economy to the volatility of oil prices and makes it vulnerable to global commodity market developments and to the Dutch disease. Export concentration is a source of instability in export earnings and the drop in oil prices in 2009 illustrates the inherent vulnerability: Azerbaijan saw its growth rate decelerate sharply from 34.5% in 2006 to a single-digit growth rate of 9% in 2009. Achieving economic and export diversification is a priority for two additional reasons. First, the oil and gas industry does not create enough jobs. It is a capital-intensive that employs skilled labour, mainly engineering professionals and

technicians. While the sector accounts for 60% of GDP, it employs only l.1% of the total workforce (World Bank, 2009). The development of the non-oil economy is thus crucial for employment generation. Second, although the oil sector is and will remain a large source of export receipts, it cannot provide all resources needed to pay for the imports of an eventual upper-middle income economy. Indeed, oil reserves are expected to be depleted in about 25 to 35 years. The World Bank (2009) estimates that, in order to achieve its development objectives, Azerbaijan needs to increase its non-oil exports per capita by 50 times in ten years.

Figure 3.7 Export concentration of Azerbaijan

(Herfindhal index, 1996-2008)



Note: The Herfindhal index is calculated at the HS-4-digit level.

Source: Author's calculation based on COMTRADE database

Ways to achieve export diversification

Diversifying exports is a priority for the Azerbaijan economy. This cannot be achieved without boosting trade and FDI in the non-oil sector. This, in turn, requires an improving the business and investment environment across the board. Azerbaijan ranked 54th in *Doing Business 2011*. This is an improvement in the overall business environment compared to a ranking of 97th in *Doing Business 2008*. However, much progress needs to be made and three main challenges need to be tackled to promote investment in the non-oil sector.

First, taxation is identified as a major problem for doing business by 39% of the exporting firms surveyed (Table 3.3). The tax level and complexity of the tax system discourage non-oil private investment. According to the World Bank (2009), lower

taxation would allow offsetting the burden posed by the real exchange rate appreciation in the tradable sector and thus promote investment.

Table 3.3 Main constraints to business activities of Azerbaijan

	Major constraints for Doing Business 2009 Enterprise Surveys (% of exporting firms surveyed)
Access to financing	49.1
Tax rates	38.89
	Ranking in the 2011 Doing Business Report (out of 183)
Tax level and complexity of the tax system	103
Trading across borders (cost, time, procedures)	177
Protecting investors	20
	Global Competitiveness Report 2010-2011 (out of 139)
Higher education and training	77
Goods market efficiency	93
Financial market development	71

Source: World Economic Forum (2010).

Second, and consistent with the results of the econometric work for commodity exporters, the absence of competition and the presence of corruption are major impediments to investors and cross-border trade. While the government can play a prominent role in diversification, it should also encourage competition and progress in areas of governance. According to the World Economic Forum (2010), corruption is the greatest problem for doing business in Azerbaijan. It ranked 90 out of 139 countries in the area of property rights, an important sector for export performance and diversification. Azerbaijan ranked 134 out of 178 countries in the 2010 Transparency International Corruption Perception Index. [3]

Third, improving the financial sector is critical for enhancing the competitiveness of Azerbaijan. While econometric results show that access to credit has an ambiguous impact on trade of commodity exporters, the difficulty of accessing credit is a regional constraint highlighted during the December 2010 Ministerial meeting "Aid for Trade Roadmap for Central Asian." In Azerbaijan, according to the *Enterprise Surveys,* 49% of exporting firms perceive access to finance as a major business constraint. The World Economic Forum (2010) also indicated that access to finance was the second most problematic factor for doing business after corruption. It is a particularly severe obstacle for small and medium-size enterprises (SMEs) reducing opportunities for them to grow and diversify into other economic activities.

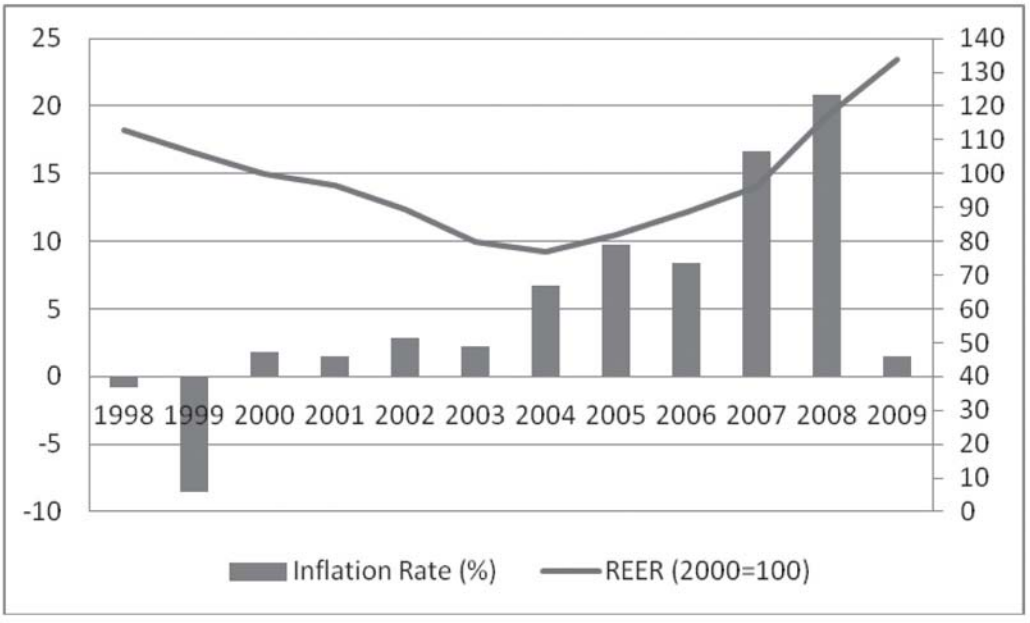
Given that Azerbaijan's development depends on trade, export diversification, and FDI, the effort to improve the business environment needs to be accompanied by a broad reduction in trade barriers affecting non-oil exports. However, the country has accorded only a low priority to trade issues. This is reflected in its low ranking (177^{th} place) in the Doing Business' trading across borders indicator (Table 3.3). Econometric results suggest that the tariff regime is a more severe constraint for commodity exporters than other country groupings but the impact of tariffs remains

small in Azerbaijan as the simple average MFN applied tariff was not particularly high, reaching 8.7% in 2009. The major impediments are found in high transaction costs resulting from informal barriers and administrative procedures for business operations with respect to licenses, customs clearances, and tax inspections that turn away potential investors. These high transaction costs limit the entry of new firms and have a negative impact on the competitiveness, resulting in higher market concentration in various sub-sectors of the economy.

Macroeconomic policies should be compatible with the development of the non-oil sector and preserve its competitiveness. There is a substantial risk of Dutch disease, detrimental to competitiveness of the non-oil tradable sector. Past experience shows that an overvalued exchange rate is a key factor in the failure and reversal of reform aiming at opening up an economy to global trade (see Chapter 1). Moreover, oil price instability could lead to unpredictable public spending that would also raise the real exchange rate and price volatility. Finally, as illustrated in Figure 3.8, Azerbaijan's real effective exchange rate appreciated by 74% during the period 2004-09, in part as a result of the increasing non-oil fiscal deficit, inflationary pressures driven by the country's rapid economic growth, inflows of capital, and rising export receipts.

Figure 3.8 Inflation and real effective exchange rate (REER) of Azerbaijan

(1998-2009)



Source : ISA (2011)

Experience shows that identifying potential non-oil export sectors is difficult. According to Brenton and von Uexhull (2009), aid to export promotion is more successful at helping existing exports than at creating new ones. Azerbaijan's agricultural and agri-business sectors may hold significant potential, given its existing knowledge and export base, and its climatic and geographic advantages (World Bank, 2009). These sectors have received the largest amount of aid-for-trade flows (21% of total aid for trade to the country) since 2005.

Export diversification brings a lot of benefits but depends on "fundamental matters", such as comparative advantage and policies. Therefore it is more useful to improve the business environment across the board rather than provide advantages to a limited number of industries. In this context, Pomfret (2010) highlights the importance of improving soft and hard infrastructure and the need to retain flexibility to ameliorate any mode of transport to any market. Promoting an efficient regional network and implementing regional integration agreements are primordial to reach its full trade potential.

Infrastructure problems do not appear to be a significant constraint to trade. Although Azerbaijan identified network infrastructure as priority for aid for trade (OECD/WTO, 2009), only 13.4% of exporters and 12.0% of non-exporters mention electricity as a problem for their activities in the *Enterprise Surveys*. Similarly, consistent with the econometric findings for both landlocked countries and commodity exporters, no exporter mentions transportation as a constraint. This may reflect the fact that virtually all exports transit through pipelines and that investments in roads and railways have been made in order to reduce the cost of transportation along the country's main corridors (North-South: Russia-Iran and East-West: Baku-Georgia). These corridors are important to achieve another element of Azerbaijan's diversification strategy: promote regional trade and diversify the country's exports market, which are currently limited to the European Union, Russia, and Turkey.

This case study shows that Azerbaijan is endowed with natural resources but that expanding its non-oil exports remains a challenge. Economic diversification and increased competitiveness could help achieve its objective to become an upper-middle income economy in ten years but the needs are numerous and cannot be tackled all at once. It is therefore necessary to prioritise and sequence correctly the reforms. The combination of trade reforms and macroeconomic stability will allow the country to attain better trade performance. Complementary policies in areas of governance, access to finance, and tax regulations as well as regional network are also important to increase its full potential.

Notes

1 The COMESA is a preferential trading area with 19 member states stretching from Libya to Zimbabwe. COMESA was formed in December 1994 with the aim of achieving economic prosperity through regional integration. See Khandelwal (2004) for a detailed description of COMESA. The EAC is a preferential trading area consisting of Uganda, Kenya, Tanzania, Rwanda, and Burundi and its ultimate objective is to first establish a customs union, a common market, then a monetary union and eventually a political federation.

2 Available at : *www.doingbusiness.org*.

3 Available at : *www.transparency.org*.

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