Summary of company case examples

Detailed case descriptions can be found in the report

	Name	Description	Summary
1	Agriculture Co.	Agriculture commodities in Brazil	• Internal transport and communications infrastructure in Brazil, coupled with customs procedures barriers, affect agriculture commodity supply chains that start in remote locations • Lack of infrastructure creates delays and potentially demurrage costs of ~US$ 25,000 per vessel per day • Lack of information and communication technology reduces operating efficiencies of truck fleet by 4% • Managing customs paperwork takes some 12 times longer in Brazil than in the European Union (full day vs a couple of hours)
2	Rubber Products	Rubber monopoly in South-East Asia	• Substandard infrastructure, poor quality control and a corrupt business environment in the South-East Asian rubber market make the supply chain for finished goods unreliable • Eliminating such barriers could reduce carried inventories by 90 days, representing a 10% reduction in landed cost
3	Healthcare Co.	Trusted trader programmes in Canada and China	• Trusted trader programmes are one way in which countries try to overcome customs barriers to trade, but specifics of the programme itself can enable trade in varying degrees • The company's trusted status in Canada is through an account-based system, requiring low minimal periodic inspections from government, which adds only 0.07% to costs per shipment • In China, trusted status decreases volume of inspections, which are still carried out for every transaction, and adds 0.64% to costs per shipment
4	Chemical Co.	Importing chemicals into US and Brazil	• Chemical industry faces high market access restrictions through licenses, import procedures and lack of government agency coordination • Delays in chemical products are sensitive because of storage problems, demurrage charges, and potential confiscation of products • Obtaining licenses and lack of coordination of five agencies in the US leads to delays in up to 30% of acetyl product shipments – with potential demurrage charges of US$60,000 per day • Inefficiencies and uncertainty in Brazil force company to choose a privately owned zone – they pay US$30,000 fee per shipment vs US$10,000 using the customs zone
5	Mexican Chemical Co.	Market access and business environment effect in Mexican industry	• A Mexican chemical company is hampered by registration regulations in the European Union requiring redundant local lab testing, which delays delivery several weeks • Deteriorating business environment increases inspection rates of chemical products into Mexico eightfold as a response to the rise of illegal drug trafficking, which adds US$ 750 to US$ 1,800 per shipment
6	eBay	Unlocking SME trade	• Complex regulations, poor international shipping services, and high fixed costs of international trade discourage SMEs, who often enter markets only with reliable shipping and transparent or few regulations • Using preliminary eBay and outside data, the authors estimate that removing such barriers could trigger between 60% and 80% increase in cross-border SME sales
7	IATA	e-Freight: global air cargo	• Complexity of handling physical paperwork along the global cargo chain is a major cause of delays and hidden costs • Adopting electronic documentation for the air cargo industry could yield US$ 12 billion in annual savings and prevent 70-80% of paperwork-related delays
8	Pharma-ceuticals	Pharmaceu-tical industry in South-East Asia	• Local investment regulations, import quotas, and inconsistent standards in South-East Asia and other developing markets obstruct pharmaceutical companies – they will release fewer new products in such markets, delaying people's access to advanced medicine • Local clinical trials imposed by some countries may delay market entrance of new medicines by as much as five years
9	Apparel Co.	Apparel manufacturer in Madagascar	• Supply chain barriers in Madagascar – shipping services and border administration – threaten to erode the country's labour cost-competitive advantage • Supply chain barriers account for about 4% of total revenues through higher freight costs, increased inventories and customs charges • Country faces high opportunity cost – for every 1% gain in fast fashion segment, some US$ 54 million is generated for the economy
10	Global Co.	Hidden costs of producing in Mexico	• Based on Bain & Company's experience, the impacts of supply chain barriers are addressed through a hypothetical study of Global Co., and what considerations it must make when setting up a manufacturing facility in Mexico for the North American region • Consideration of a country's hidden supply chain costs includes transportation, infrastructure and security barriers • While Mexico might have a 25% cost advantage, more than half of that advantage could be eliminated by supply chain friction costs
11	CPG Co. (consumer packaged goods)	Risk and business environment in Africa	• Political and social instability, economic mismanagement, corruption, and security increase company costs and financing ability in Africa; they drive company investment decisions • Poor quality of infrastructure in roads, ports and services creates inefficiencies that translate into higher prices. Input raw material costs may even increase almost up to 200% in certain countries
12	Semicon-ductor Co	High-tech industry barriers in Brazil, Russia, India and China (BRIC)	• Vague regulations and complexity in customs processes within China and Russia create bottlenecks in a semiconductor company's supply chain, making it difficult to manage inventory levels and the shipment of finished goods • Operating in uncertain and unsafe business environments in Brazil, Argentina and India hampers operations and increases business costs
13	Tech Co.	Preferential market access in India	• Preferential Market Access regulation, which provides preference for locally produced products in government procurement, could increase costs by 10% over imports. If extended to cover sales to private companies, this would have adverse effects on the competitiveness of foreign producers
14	Handset Distribution Co.	Market access in Brazil and overall African business environment	• Complexity in tax and tariff regimes, and excessive customs requirements create significant costs in Brazil that are transferred to consumers • Handsets imported to Brazil will face 83% tax vs 32% for locally produced, and customs delays of up to a month will add 5% to cost of product • Fees and tariffs, corruption, and inadequate infrastructure in Africa lead companies to base operations elsewhere, and sometimes even not to enter specific markets • Lower barriers and greater connectivity in Dubai make it a better location for operation, even if that means adding ~5% cost to end product
15	PC Co.	Technology market access in the Middle East	• A wide range of supply chain barriers to trade in the Middle East, in the form of local content requirements, rules-of-origin restrictions and pilferage at border crossings, stretch out customer delivery times and increase costs by 6% to 9%
16	Computer Co.	Computer market access in Russia	• Product testing and licensing lead to large administrative costs and delay time-to-market anywhere from 10 days to eight weeks depending on specific product type • Price uplifts – the price-setting of shipment imposed by customs on imports – cause higher value-added tax (VAT) that increases costs in some instances up to 30% of invoice price
17	Express Delivery Services Co.	Customs barriers in global express delivery	• Delays arising from customs clearance bottlenecks and border administration inefficiencies are the major barriers express delivery companies encounter • Lack of risk analysis methods, limited customs operating hours, and lack of process standardization and coordination cause delays that may amount to 25% of the shipping cost company pays per package
18	Shipping Co.	Cabotage in US and China	• Cabotage is a politically sensitive restriction to the movement of goods within country borders; while based on sound national security concerns, the inefficiencies it creates affect entire supply chains. • Relaxing cabotage restrictions reduces yearly costs by about US$ 200 million if the US trans-ships international containers instead of transporting via land • In China, relaxing relay regulations may reduce costs by some US$ 500 to US$ 700 million, and may reduce some US$ 1 billion in inventory by trans-shipping instead of rerouting

Enabling Trade: Valuing Growth Opportunities

A World Economic Forum report in collaboration with Bain & Company and the World Bank

This report examines supply chain barriers to international trade and concludes that they are far more significant impediments to trade than tariffs. In fact, reducing supply chain barriers could increase world GDP over six times more than removing all tariffs.

The report combines empirical macroeconomic analysis with a series of in-depth case studies on individual companies and industries. This ground-level understanding informs a general set of lessons relevant to governments and companies as they attempt to promote trade and economic growth. The authors of the report offer specific policy recommendations with the lessons in mind.

Reducing supply chain barriers to trade could increase GDP up to six times more than removing tariffs. They have been under managed by both countries and companies

Reducing supply chain barriers to trade could increase GDP by nearly 5% and trade by 15%

If every country improved just two key supply chain barriers – border administration and transport and communications infrastructure and related services – even halfway to the world's best practices, global GDP could increase by US$ 2.6 trillion (4.7%) and exports by US$ 1.6 trillion (14.5%). For comparison, completely eliminating tariffs could increase global GDP by US$ 0.4 trillion (0.7%) and exports by US$ 1.1 trillion (10.1%). The estimates of the impact of barrier reduction are conservative; they reflect improvements in only two of four major supply chain categories.

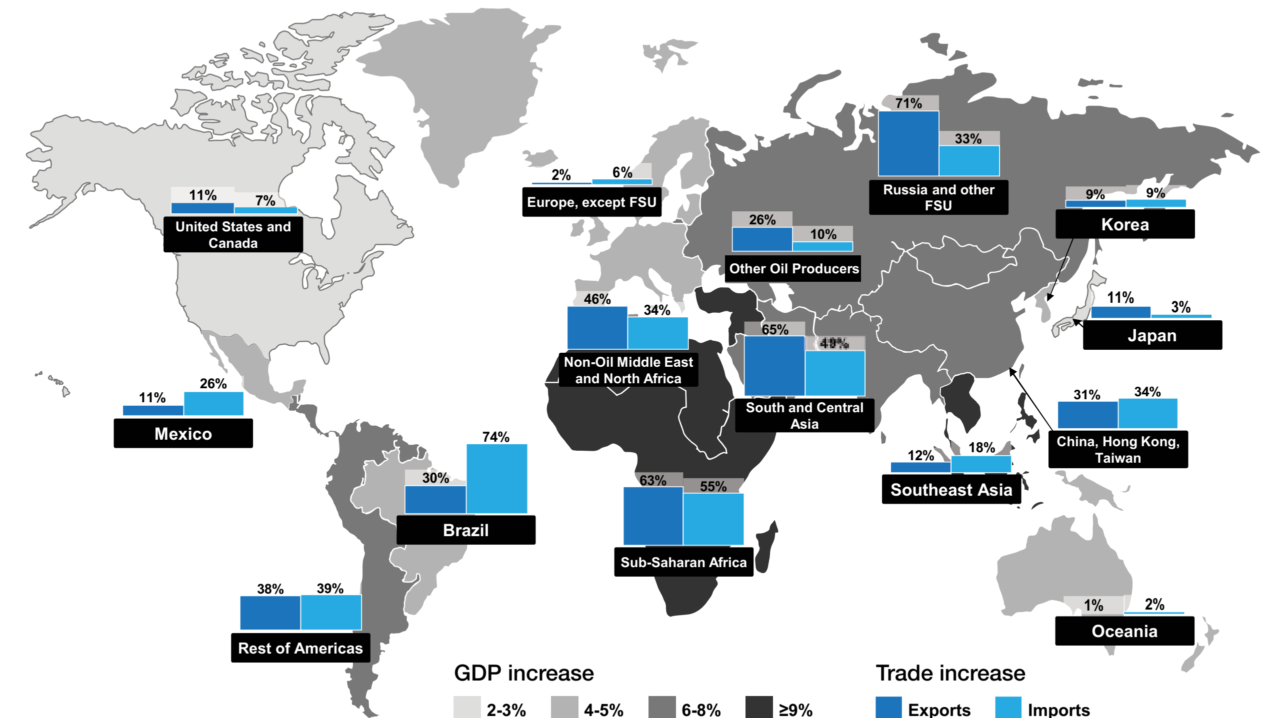
Why is lowering barriers so effective? The reason is that it eliminates resource waste, whereas abolishing tariffs mainly reallocates resources. Moreover, the gains from reducing barriers are more evenly distributed among nations than the gains from eliminating tariffs.

Of course, reducing supply chain barriers requires investment, while tariff reductions require only the stroke of a pen. However, many barriers can be traced to regulation. Detailed analysis can enable policy-makers to prioritize the investments that are most critical and cost-efficient.

Reducing barriers benefits households by lowering prices and improving employment prospects

The welfare gains from a trade increase would be substantial, though not every individual or company would benefit. Reducing supply chain barriers lowers costs and hence lowers prices, both to consumers and to firms that import production inputs. Consumers gain access to a wider variety of goods. Workers benefit as well, as the boost to GDP is likely to stimulate employment growth. In the long run, trade facilitation promotes a shift in resources to more productive industries and firms, thereby increasing productivity and wages.

Impact per region with reduction of supply chain barriers



Trade increases from reducing supply chain barriers can be achieved only if specific "tipping points" are reached

The effects of reducing barriers are not gradual; changes occur when tipping points are reached
Most macroeconomic trade models assume that the relationship between removing a supply chain barrier and the resultant effect on trade is a continuous function. But the case studies in this report suggest that removing barriers has an effect only when the effort reaches a tipping point. Companies conduct rigorous analyses to determine profitable geographies for production and sale of their goods. These analyses are generally binary: the company either chooses to produce and/or sell in a specific market or does not. Incremental reductions in trade barriers thus may have no impact until a certain "set" of barriers is removed. For example, Brazil adopted an electronic freight system but failed to invest sufficiently in supporting information and communications technology (ICT) infrastructure. Agriculture Co., a global agribusiness, experiences multiple delays each week when government servers crash. The company estimates that unreliable ICT systems and processes cut its truck fleet's operating efficiencies by some 4%.

However, once barrier reductions reach a tipping point, the impact on trade and foreign direct investment can be immense. For example, by addressing the different barriers and the complexity faced by small Internet merchants, the number of merchants selling internationally can increase significantly.

A barrier's consequences vary by industry
The effect of supply chain barriers on companies differs from one industry to another; it depends on product characteristics such as time sensitivity, exposure to regulation, and value-to-bulk ratios, as well as supply chain complexity. Companies commonly respond to delays and unreliability by holding additional inventory. For example, a company highlighted in this report active in rubber products holds 120 days of inventory instead of 30 as a result of supply chain barriers. Individual companies must balance the cost of higher inventory levels against the opportunity costs of lost revenue or reputational damage if barriers leave them under stocked.

Barriers are harder to overcome for smaller businesses
Supply chain barriers make it particularly difficult for smaller businesses to enter foreign markets. Despite being integral parts of most national economies, small- and medium-sized enterprises (SMEs) have been largely excluded from export markets. Overcoming supply chain barriers often requires significant upfront investment – for example, understanding varying country regulatory requirements – and SMEs may find it difficult to generate enough revenue to compensate for these fixed costs. SMEs are also unable to realize the economies of scale associated with international shipping. For example, a survey of eBay's small German merchants shows that one-third of the significant barriers to exporting outside the European Union have to do with the number of regulatory regimes or with difficulties in international shipping.

Clear regulations and better coordination among agencies are needed
One key element of supply chain barriers is heterogeneity in country policies, and even among agencies within any one country. A lack of uniform customs rules, for example, makes it significantly more costly for a company to operate in multiple foreign markets. The variation requires companies to invest in understanding many different regulations, and to complete far more paperwork than would be required under uniform standards. In extreme cases, companies must alter product specifications or reorganize their supply chain to deal with conflicting requirements. Coordination can also be lacking within nations, particularly when an industry falls under the jurisdiction of multiple government agencies. For example, when importing chemical products into the US, Chemical Co. must, on average, comply with regulations from five different agencies that often fail to coordinate and communicate effectively with one another. The company's shipments of acetyl products, for example, are delayed a staggering 30% of the time.

Recommendation to countries and companies – the devil is in the details

Main country lesson: Governments need to remove the sets of barriers relevant to their industries
Given the heterogeneity in supply chain barriers, governments must understand their existing industries and potential future industries, and prioritize which barriers are most costly to those industries. Governments can then develop tailored strategies to address them, with an emphasis on reaching the tipping points that will unlock trade and investment. Singapore provides a good example: its strategic initiatives to reduce barriers have made it one of the most open economies in the world, placing it at the top of the Enabling Trade Index.

Some companies have a vested interest in preserving barriers
In engaging with stakeholders, governments should recognize that some may have a vested interest in preserving barriers. Some companies will be local firms seeking protection from import competition. The remainder may include firms whose added value exists because of barriers, firms that have already made significant investments to address barriers, and firms that perceive the status quo as inevitable. Governments should also realize that some of the stakeholders might not exist yet or might not have voice.

Main company lesson: Companies may not recognize costs where they should
In dealing with a global supply chain, companies must account for costs beyond traditional factor costs – for example, the costs associated with greater inventory or an increased risk of theft. When making decisions on which markets to produce and sell in, companies should recognize that costs associated with supply chain barriers may offset more obvious savings, such as lower labour costs. Many companies, after making large investments, have been surprised to find that supply chain barriers completely eliminate the cost advantages on which the investments were based.

Policy implication: Think Supply Chain!

Given the significance of supply chain barriers, the international community should actively manage supply chain costs, particularly since tariff discussions have stalled. Governments need tailored strategies to address these barriers, but certain general *policy recommendations* should inform their strategies:

1. *Create a national mechanism to set policy priorities for improving supply chain efficiency based on objective performance data and feedback loops between government and firms.*
   Governments must work with businesses and analysts to determine the policies and procedures that will help reach key tipping points. A central component of this effort should be the creation of mechanisms to collect data on factors affecting supply chain operations. This data can then be used to identify clusters of policies that jointly determine key supply chain barriers, identify priorities for action, and assess progress.
2. *Create a focal point within government with a mandate to coordinate and oversee all regulation that directly affects supply chain efficiency.*
   Given the importance of tipping points, governments need to design policy with an economy-wide vision and the recognition that industry-specific supply chains are affected by different clusters of policies. Improving supply chain performance requires coherence and coordination across many government agencies and collaboration with industry. Governments should create a high-level body to oversee all regulation directly affecting the supply chain.
3. *Ensure that SME interests are represented in the policy prioritization process and that solutions are designed to address specific constraints that impact SMEs disproportionately.*
   Because SMEs face proportionally more barriers, governments should pay special attention to the needs of smaller businesses.
   For example, one relatively straightforward policy would be to raise de minimis provisions to facilitate small-business engagement in international markets; another is to ensure that initiatives to reduce regulatory compliance costs such as trusted trader programmes are open to smaller firms and are complemented by programmes to help them address regulatory complexity and lower their costs.
4. *Whether through multilateral or regional agreements, governments should agree to pursue a whole of the supply chain approach to negotiating barrier removal.*
   Greater coherence of domestic policies is important, but a key insight derived from the case studies is that coordination across countries matters as well. Joint action will increase the overall gains from lower supply chain barriers. International trade negotiations usually take a silo approach, addressing policy areas in isolation. Lowering supply chain barriers requires a more holistic approach that spans key sectors that impact trade logistics, including services such as transport and distribution, as well as policy areas that jointly determine supply chain performance – in particular those related to border protection and management, product health and safety, foreign investment, and the movement of business people and service providers. A whole of the supply chain approach can be pursued through both multilateral and regional trade agreements.
5. *Launch a global effort to pursue conversion of manual and paper-based documentation to electronic systems, using globally agreed data formats.*
   Many of the inefficiencies in supply chain operations reflect a lack of reliability due to delays and uncertainty stemming from manual paper-based documentation, redundancy in data requirements and the absence of pre-arrival clearance and risk management-based policy implementation. A global effort to adopt common documentary and electronic data/information standards would reduce administrative costs, errors, and time associated with moving goods across borders.