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**World Trade Organization**  
Economic Research and Analysis Division

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## **A Simple Trade Policy Perspective on Capital Controls**

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### **ABSTRACT**

This note discusses capital controls using insights from the trade policy literature. It highlights some key issues that have been neglected in the current international debate on capital controls. Capital is tradable in the same way as many goods and services are. As a result, much of the analysis pertaining to trade and trade policy in goods and services applies with equal force to capital movements. Free trade is typically the best trade policy, no matter whether it is trade in goods, services or capital. But if investor behaviour and the prevailing policy environment are not conducive to immediate free trade, the choice of instrument for controlling capital flows becomes important. Tariffs and other price-related restrictions are preferable to quantitative restrictions or prohibitions because: (i) they cause less rent seeking, and (ii) they do not insulate the domestic market from price changes and innovations in international markets.

Key words: Trade policy, capital controls, protectionism

JEL Category: [F13, F21]

# **A Simple Trade Policy Perspective on Capital Controls**

**by Ludger Schuknecht<sup>1</sup>**

This short article discusses capital controls using insights from the trade policy literature. It highlights some key issues that have been neglected in the current international debate on capital controls.<sup>2</sup>

Capital is tradable in the same way as many goods and services are: it can be imported or exported at a price which reflects international demand and supply conditions. As a result, much of the analysis pertaining to trade in goods and services applies with equal force to capital movements. Many of the lessons from trade policy also apply to capital flows and the main purpose of this short article is to point out some of these lessons. Free trade is typically the best trade policy, no matter whether it is trade in goods, services or capital. But if investor behaviour and the prevailing policy environment are not conducive to immediate free trade, the choice of instrument for controlling capital flows becomes important. Here, the trade policy debate has some important lessons to offer. Most significantly, tariffs and other price-related restrictions are preferable to quantitative restrictions or prohibitions because: (i) they cause less rent seeking, and (ii) they do not insulate the domestic market from price changes and innovations in international markets.

## **1. Parallels and differences between trade in capital versus trade in goods and services**

A number of intuitions from trade in goods and services can be safely applied to trade in capital as well. Capital flows are an intertemporal exchange which have a price like any good or service. This price is, for example, the interest rate of a loan or a bond. The principle of arbitrage applies equally to international trade and international finance, where price differences induce traders to move goods, services and capital to the market with the highest return until international returns are

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<sup>1</sup> World Trade Organization, Geneva, E-mail: Ludger.Schuknecht@wto.org. I am grateful to Peter Doyle, Masamichi Kono, and Volker Wieland for very helpful comments.

<sup>2</sup> See, for example, recent publications by international organizations or central banks, including Federal Reserve Bank, 1997; Folkerts-Landau and Lindgren, 1998; Johnston, Darbar and Echeverria, 1997, and much of the international press. The only study which analyses capital controls and dual exchange rates as trade

approximately equalized. This, for example, is at the root of most of the capital movements which aim to benefit from exchange rate differentials between markets. Differences in expected returns also drive longer term capital flows such as foreign direct investment.

The principal of comparative advantage applies to international trade in capital. Consider a firm with a comparative advantage in raising capital in the form of a floating rate Yen loan because it has not got much debt in that form and can get a new loan at a low interest rate. If the firm really wants a fixed rate US\$ loan, it can seek out another firm which has an advantage in borrowing US\$ but wants a floating rate Yen loan. The two can then arrange an interest rate swap.

The fit between trade in goods and services on the one hand, and capital on the other hand, however, is not exact. The same capital which flows into a country (an import) can almost instantaneously leave the country again as an outflow (an export). This is rare in the case of finished goods and services, with the exception perhaps of re-exports. However, imported inputs often leave a country indirectly as intermediate or finished products, in a manner similar to capital which is put to work in a foreign country before it is repatriated much later.

Unlike goods and services trade, where the price of products is typically known, the price for capital can be quite uncertain. This element of risk is low, for example, for Americans investing in US\$-denominated government bonds from another country with little public debt. But uncertainty can be much higher for other types of capital movements, such as the purchase of bonds in very risky markets where exchange rate fluctuations cannot be hedged easily. As a result, certain capital movements reflect the willingness to take on high risk in exchange for a high potential return, and these are often considered speculative. Speculation also takes place in some areas of commodity trade. Stockpiling or forward purchases/sales can be "bets" on future price developments.

From a trade policy perspective, export and import restrictions are important for both capital flows and "conventional" trade. However, trade in goods and services usually encounters very few export restrictions, whereas controls on capital exports are still quite prominent in a number of countries. In addition, there are limits to the application of certain arguments favouring protection in

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restrictions is Adams and Greenwood, 1985. It should be noted that this article looks at restrictions on capital flows but not on restrictions on financial services trade.

"conventional" trade to trade in capital. It is hard to see, for example, how the concept of infant industry protection and strategic trade policy in goods and services can be applied directly to capital flows.<sup>3</sup> Alternatively, the "herding" and "bubbles" issues related to capital markets which provide the main arguments for restrictions on capital flows hardly feature in other trade. The rationale here is that herding behaviour of international investors (moving into and then out of countries with large amounts of short term capital) coupled with a weak regulatory framework and lack of transparency can create problems for macroeconomic management and the domestic financial system; that is, social costs arise which can outweigh the benefits from free capital movements. This was presumably behind Malaysia's move to re-introduce capital controls in September 1998.

## 2. "Free trade" and tariff protection

Starting with a bit of theory, recall the classical case of free trade versus import restrictions as presented in the attached figure. Assume this figure illustrates the market for capital but it could represent any other market for goods and services. In free trade, domestic capital of  $q_d$  and foreign capital of  $q^* - q_d$  is supplied at the interest rate  $r^*$ . However, it should be noted that free trade does not mean the complete absence of any restrictions on international capital flows. Even countries without restrictions on capital flows impose prudential regulations on banks and other financial institutions, such as limitations on open foreign exchange positions or maturity mismatches, to protect the stability of their financial system.

Assume now that a tariff  $t$  is introduced on foreign capital inflows. With this tariff, total capital supplied would decline from  $q^*$  to  $q^t$  and the equilibrium interest rate would rise to  $r^t$ . Domestic capital supply would increase to  $q_d^t$  while capital inflows would fall to  $q^t - q_d^t$ . Proponents of controls would argue that such a tariff is desirable if it reduces the social costs from inflows as discussed above.

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<sup>3</sup> The only parallel is that capital controls protect underdeveloped regulatory systems in a manner similar to protection shielding infant industries. They also have similar drawbacks: protection reduces the incentive for underdeveloped regulatory systems to be reformed and discourages infant industries from "growing up".

Abstracting from the social costs, what are the welfare implications of the tariff? Transfers to domestic capital owners are represented by the trapezoid a. This is a rent to capital owners as compared to free trade. The tariff revenue transfer to the government is reflected by the rectangle c. Welfare losses are represented by the two triangles b and d. However, additional welfare losses are likely to arise from rent seeking behaviour. Domestic financial institutions have an incentive to lobby for protection to gain the transfer a (for example, under the pretext of raising financial sector stability), and this process costs resources as well. The costs of protection from both efficiency loss and rent seeking can be very high, as amply demonstrated for "conventional" trade protection in the political economy literature (Krueger, 1974; Hillman 1989). An analysis of restrictions on capital outflows would be analogous to looking at export restrictions, which also give rise to important welfare costs and distributional effects.

Without going into details, tariffs on capital flows could take various forms. They could be levied through non-interest bearing reserve requirements, whereby the interest would accrue to the central bank. This was practised by Chile until September 1998. Tariffs could also be levied as a proportionate tax of a certain percentage on capital inflows and outflows. Such transaction taxes aiming to discourage short term flows relative to long term flows are also called Tobin-taxes. It should be noted that taxes and fees on financial services and the related capital flows are already applied in many instances, and that an extension of such charges on international capital flows is conceivable. Variable levies to deal with surges in capital inflows or outflows could reduce volatility through "fine tuned" protection. These levies would need to be applied in such a manner that they temper volatility without insulating the domestic economy from international markets, and without raising the costs of financing further during times of crisis.<sup>4</sup> Adams and Greenwood (1985) discuss dual- or multiple-exchange rate systems whereby different exchange rates are applied to different forms of capital movements, but experience with such systems has been unsatisfactory in the past.

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<sup>4</sup> I am grateful to Peter Doyle for this suggestion.

### 3. Quantitative restrictions versus tariffs

The debate on capital controls also considers quantitative restrictions and prohibitions of capital movements. Such restrictions limit capital flows to an amount  $X$  or they prohibit certain movements entirely. However, quantitative restrictions can also work more subtly through licensing systems, restrictions on the location and number of service suppliers, the volume of turnover, prohibitions of certain financial instruments, etc.<sup>5</sup> We will only illustrate the case of controls on inflows but the same argumentation applies equally to quantitative restrictions on capital outflows.

Quantitative restrictions (or prohibitions) on capital flows are typically much more harmful than tariff-like protection. This is another parallel between trade policies towards capital movements and those towards other products. When comparing the implications of quotas and tariffs, initial (static) and more long-term (dynamic) effects have to be considered. The first adverse consequence of quotas compared to tariffs is that they usually stimulate more rent-seeking. Unless auctioned (and it is probably difficult to auction a financial quota), a quota does not result in government revenue. Instead, it gives rise to a quota rent equal in size to the potential tariff revenue. The rent accrues to foreign suppliers of capital if the latter can benefit from the higher rate of return in the protected market.<sup>6</sup> Bureaucrats in the agency administering controls can gain if part of the quota rent is transferred into their pockets, e.g., through corruption. The rent accrues to domestic and foreign financial intermediaries if the latter can, for example, borrow from international capital markets at international interest rates and lend in the domestic market at the higher domestic rate. Thus, the parties involved may have an incentive to engage in rent-seeking to gain part of the quota rent, and they may waste additional resources in the process of doing so. As the potential rent is much larger with quantitative restrictions than under tariff-like protection (areas a and c as compared to area a only in the figure), rent seeking is likely to be much higher in the case of quotas.

The dynamic costs of quantitative restrictions are typically even more important. A quota insulates the domestic market from international market developments. Foreign market penetration

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<sup>5</sup> Quantitative restrictions on financial services trade through which capital moves internationally are defined in the GATS (see Kono, Low, Luanga, Mattoo, Oshikawa and Schuknecht for more detail).

<sup>6</sup> However, foreign capital owners may oppose controls despite higher returns because they may see controls on inflows as an indicator that governments would also control outflows when it is opportune.



cannot increase beyond the quota, unlike under tariff-like protection where the quantity supplied can vary over time. Lower international interest rates or lower costs of intermediation through financial innovation, for example, would then not result in more capital inflows and lower domestic prices. In addition, quantitative restrictions can undermine the development of financial markets and the quality of financial intermediation if protection reduces intermediaries' incentive to innovate and introduce new and better financial products. This, in turn, can undermine economic growth and development on a long term basis (Levine, 1997).

The effects of quantitative restrictions on capital as compared to, let us say, bananas or cars are thus likely to be similar: they encourage more rent-seeking and less innovation than tariff-like restrictions. Import prohibitions are the strongest form of protection and pose the largest adverse consequences.

It is also worthwhile discussing the likely response by traders to controls in capital markets as compared to those relating to "conventional" trade. Protection generates a price difference across markets. If the price difference is large enough, arbitrage through circumvention of controls is likely to arise in any market. Again, this incentive is strongest when prohibitions of capital flows are applied. Controls increase circumvention and smuggling. These can take the form of capital account transactions hidden in the current account such as over- or underinvoicing and exaggerated travel expenses, the exportation of cash-filled suitcases, and numerous other forms.

While quantitative restrictions may be easy to administer for clearly identifiable products which physically cross borders such as cars or bananas, the administration of quantitative restrictions on capital flows is likely to be much more difficult, and may require a sizeable bureaucratic apparatus. Corruption is likely to rise, with government officials "selling" exemptions from prohibitions or quotas. Various studies and anecdotes on foreign exchange rationing and other types of controls in a number of countries confirm this picture. Tariff-like protection may also be difficult and costly to administer, but it is still likely to impose lower demands on the bureaucracy and creates less incentives for bribing government officials.

#### 4. Policy implications

To conclude, the debate on capital controls should take into account the lessons from international trade policy. Tariff-like restrictions on capital flows should be considered when free trade is not an immediate possibility, and the alternative of quantitative restrictions or prohibitions is considerably worse. In other words, if certain types of capital flows (such as short term lending) are considered "hazardous", tariff-like protection is more desirable than quantitative restrictions or prohibitions, and more thinking may be required on how best such price-based restrictions can be designed. It is not a coincidence that tremendous efforts were made to replace quantitative restrictions in agriculture and in many other sectors with tariffs during the Uruguay-Round negotiations. As this note demonstrates, a similar case can probably be made regarding capital flows and controls. Finally, it should not be forgotten that progressive liberalization is desirable in trade in goods, services and capital for the reasons outlined above--any type of protection should only be a temporary measure which provides time to create the proper policy framework.

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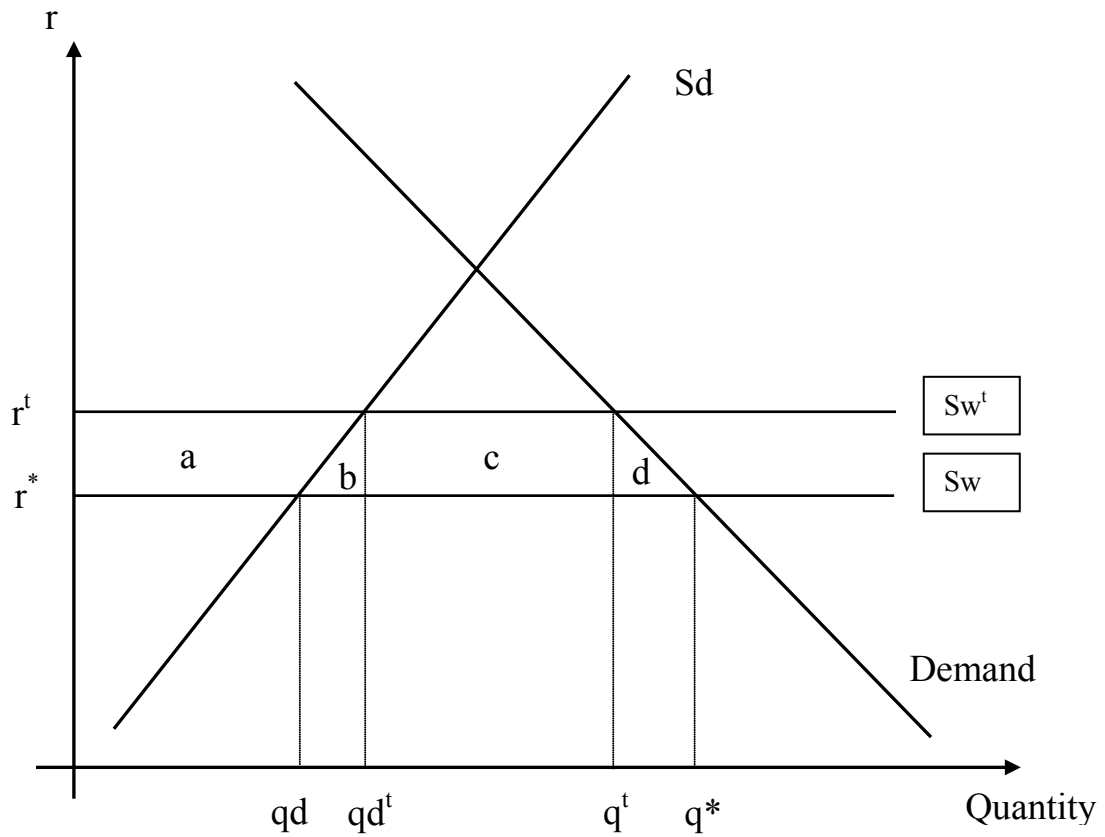
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Figure: Protection and Capital Flows



a=transfer to domestic capital owners  
 b and d=welfare loss of protection  
 c=transfer to budget, foreign capital owners or financial institutions

$q_d - q^*$ =capital inflow in free trade  
 $q_d^t - q^t$ =capital inflow with protection

Sd=domestic supply curve  
 Sw=world supply curve  
 Sw<sup>t</sup>=world supply curve with tariff  
 Demand=domestic demand curve