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Foreign Acquisitions and National Security: What are Genuine Threats? What are Implausible Worries?

A Framework for OECD Countries, and Beyond

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Introduction and Overview

When does foreign acquisition of a company constitute a national security threat to the country where the target corporation is headquartered? When does a foreign acquisition pose no national security threat whatsoever? As the world recovers from the international financial crisis, will national attempts to block foreign corporate acquisitions become a new “protectionist drift” that interferes with the free flow of capital and technology across borders?¹ This paper offers a framework that will enable national authorities in the country where the foreign acquisition is proposed to take place to separate plausible national security threats from implausible claims that a foreign acquisition will threaten national security.²

This paper first describes three categories of potential threat that might be associated with a proposed take-over of a corporation headquartered within a given country, and illustrates how the threat-assessment framework applies to cases that have arisen within the United States. The paper next extracts generalizations about sensitive foreign acquisitions that apply across all OECD countries – indeed, across all countries – that might be concerned about how their national security could be affected. These generalizations fit comfortably within the Guidelines for Recipient Country Investment Policies Relating to National Security (Recommendation adopted by the OECD Council on 25 May 2009) while providing an OECD-wide decision tree for evaluating the plausibility of actual national security threats. The paper concludes by putting the threat assessment tool described here into proper context; namely, to ensure that all countries continue to benefit from the positive contributions that foreign investment – including foreign investment via acquisition -- can provide to home and host countries alike.

I. A Framework for Threat Assessment

¹ David M. Marchick and Matthew J. Slaughter. 2008. *Global FDI Policy*. New York: Council on Foreign Relations, June. Lars-Hendrik Roller and Nicolas Veron. 2008. *A European Approach to Sovereign Investment*. Policy Brief 2008/08. Brussels: Breugel. October. Subrata Bhattacharjee. 2009. *National Security with a Canadian Twist: The Investment Canada Act and the New National Security Review Test*. New York: Vale Columbia Center on Sustainable International Investment. Columbia FDI Perspectives. No. 10. July.

² This paper draws from Theodore H. Moran. 2009. *Threat Threats: An Analytical Framework for the CFIUS Process*. Washington, DC: The Peterson Institute for International Economics, and from a subsequent column in VOX, October 19, 2009.

The framework laid out here proposes that potential damage to national security from a foreign acquisition falls into three categories: The first category of threat (“Threat I”) is that the proposed acquisition would make the country where the acquired firm is located dependent upon a foreign-controlled supplier of goods or services crucial to the functioning of that economy (including, but not exclusively, the functioning of that country’s defense industrial base) who might delay, deny, or place conditions upon provision of those goods or services. The second category of threat (“Threat II”) is that the proposed acquisition would allow transfer of technology or other expertise to a foreign-controlled entity that might be deployed by the entity or its government in a manner harmful to that country’s national interests. The third category of threat (“Threat III”) is that the proposed acquisition would allow insertion of some potential capability for infiltration, surveillance, or sabotage – via a human agent, or non-human agent -- into the provision of goods or services crucial to the functioning of that economy.

The analysis in this section draws upon the historical experience of the United States, and – with apologies for specific names and cases – reflects concerns that have surfaced when foreign acquisitions involve firms from countries where national interests have diverged or appeared to diverge from those of the US.

Threat I

As indicated above, Threat I springs from the prospect that the proposed acquisition would make the country where the acquired firm is located dependent upon a foreign-controlled supplier of goods or services crucial to the functioning of that economy (including, but not exclusively, the functioning of that country’s defense industrial base) who might delay, deny, or place conditions upon provision of those goods or services.

For there to be a credible likelihood that a good or service can be withheld at great cost to the economy, or that the suppliers (or their home governments) can place conditions upon the provision of the good or service, the industry must be tightly concentrated, the number of close substitutes limited, and the switching costs high.

Case materials from the United States illustrate that Threat I does not hinge merely upon whether the good or service produced by the firm to be acquired is “crucial” to the home country of the firm.³ When the Russian firm Evraz, controlled by a business leader with close ties to the Kremlin (Roman Abramovich), proposed to acquire Oregon steel, it was clear that steel was a “crucial” input for the United States: steel is a major component of more than 4000 kinds of military equipment, from warships, tanks, and artillery to components and subassemblies of myriad defense systems. Uninterrupted access to steel is likewise vital for the every-day functioning of the US civilian economy.

³ The assessments of all cases in this paper are based on publicly-available materials, and do not reflect any special knowledge of actual Committee on Foreign Investment in the United States (CFIUS) deliberations.

But the international steel industry is relatively un-concentrated and switching costs for non-specialized steel products are low. The top four exporting countries account for no more than 40 percent of the global steel trade. Alternative sources of supply are widely dispersed, with ten countries that export more than 10 million metric tons (Japan, Ukraine, Germany, Belgium-Luxembourg, France, South Korea, Brazil, Italy, and Turkey, plus Russia). There are twenty additional suppliers that export more than 5 million metric tons.

Certainly the steel industry is vital to US national economic and security interests. But the multiplication of sources of supply around the world means that there is no realistic likelihood that an external supplier (such as Russia) – or group of suppliers – could withhold steel from US purchasers, or place conditions upon US purchasers or upon the US government in order to take delivery.

The globalization of steel production allows US users to take advantage of the most efficient and lowest cost sources of supply without a nagging worry that somehow the United States is becoming “too dependent” on foreigners.

If the analytics recommended here had been applied to CNOOC’s proposed acquisition of Unocal in 2005, it would have become clear that the idea China could deny the US access to oil via the take-over of a small US oil company was simply implausible. Looking solely at the question of whether oil is “crucial” for the functioning of the US economy, and US military, the answer is clearly yes. Access to oil is critical for the United States, and for the US defense industrial base. Case closed!⁴

But, within the threat assessment framework as proposed here, the case is far from closed. What about the concentration of alternative suppliers and potential switching costs? What about the potential “leakage” of sensitive technologies and managerial expertise?

In the year preceding the proposed acquisition (2004) Unocal produced 159,000 barrels of oil per day (70,000 barrels per day in the United States) and 1,510 million cubic feet of gas per day (577 million cubic feet per day in the United States). Thirty three percent of its oil and natural gas production was within the United States, sixty seven percent outside. Unocal had proved reserves of 659 million barrels of oil and 6,658 billion cubic feet of natural gas. Twenty six percent of these reserves were within the United States, sixty four percent outside.

Concern was expressed on the part of US commentators that CNOOC might divert Unocal’s energy supplies exclusively to meet Chinese needs. In the extreme, CNOOC might reroute Unocal’s US production of 70,000 barrels of oil per day and 577 million cubic feet of gas per day back to China. (This would be a highly complicated and expensive undertaking, however, since US pipelines across western states flow west-to-

⁴ Press statements on CNOOC’s proposed acquisition of Unocal by Representative Joe Barton (R-Texas) and Representative Duncan Hunter (R-CA).

east; oil from the Gulf of Mexico would have to be shipped by tanker via the Panama Canal.)

Should the Chinese government mandate this, a prudent calculation is that even a privatized CNOOC could be forced to follow home country directives. Chinese government ownership of CNOOC alters the likelihood of this outcome slightly, if at all.

The bottom-line question, for US authorities – led by the Committee on Foreign Investment in the United States (CFIUS) -- was, would this outcome harm the United States?

As argued above, this diversion would constitute a “threat” to US interests – economic, political, or national defense -- only if sources of supply are tightly concentrated and switching costs are high. But twenty-one countries (15 non-OPEC countries) have oil for export greater than Unocal’s entire US production. Six more could be called upon to make up for a large fraction of Unocal’s US output. With US oil consumption at 20.7 million barrels per day, and US oil imports at 12.4 million barrels per day, US buyers would simply replace Unocal’s miniscule production (three tenths of one percent of US use) with extra imports, leaving net imports and US balance of payments in energy unchanged. US courts would force CNOOC to pay the switching costs if contracts were broken.

It is important to reiterate that protection of US interests derives from the dispersed structure and fungible qualities of the international oil industry. Whether the CNOOC parent company has Chinese government ownership at present, or not – or might someday be completely privatized – a CNOOC-Unocal subsidiary could still become the object of conflicting USG or PRC directives.

Could US oil from the Gulf of Mexico be used to provision the Chinese People’s Liberation Army (PLA)? Certainly, the answer is affirmative, if the US government did not legally and/or physically block such shipments. But this would penalize the PLA in comparison to provisioning from alternative commercial suppliers nearer to home. If CFIUS strategists could be permitted to enjoy a slyly-mischievous sense of humor, CFIUS would have *required* that a CNOOC-owned Unocal ship all its North American output back to supply Chinese military forces.

In a bilateral crisis, moreover – perhaps over a confrontation across the Taiwan Straits – a CNOOC-owned US-based Unocal actually would represent a hostage in US hands, not the other way around. Allowing Unocal business (and Lenovo-IBM business, as considered later) to proceed as usual would be a bargaining chip for the US government to play, helping to offset countervailing Chinese pressures over US investors on the Chinese mainland.

Under certain conditions, however, the potential for Threat I is – using rigorous analytics – quite plausible, as in Nikon’s 1989 proposal to acquire Perkin Elmer’s “stepper” division. Steppers are advanced lithography equipment used to imprint circuit patterns

on silicon wafers in the semiconductor industry. At the time of the proposed acquisition, Nikon controlled roughly half of the global market for optical lithography and Canon controlled another fifth.⁵ If the acquisition were allowed to proceed, US producers would be highly constrained in where they could purchase machinery to etch micro-circuits on semiconductors. The sale would effectively place quasi-monopoly power in the hands of the new owner, and – by extension – the new owner’s home government.

Here there was solid justification for a worry that Japanese authorities held the potential to direct a hypothetical Nikon-Perkin Elmer company, formally or informally, to delay or deny new products, services, and technologies to US buyers. Sorting out whether this potential might be utilized is more problematic. Senator Lloyd Bentsen held hearings at which US semiconductor firms asserted that Japanese firms were disadvantaging US equipment users by withholding, or delaying sales, of state-of-the-art technology. A 1991 US GAO report did not uncover convincing support for these assertions, or for other illegal or predatory behavior on the part of Japanese suppliers.⁶

The concern about the Japanese government instructing US subsidiaries of home-country companies to behave in ways inimical to US national interests was not, however, without foundation – MITI, under pressure from Socialist members of the Diet, did force Dixel, the American subsidiary of Kyocera, to withhold advanced ceramic technology from the US Tomahawk cruise missile program.⁷

Again, however, the data suggest that Threat I cases are – in the US experience – quite rare. During Operation Desert Shield and Operation Desert Storm, the US Department of Commerce received 91 requests from US companies for assistance in expediting the delivery of products to support US military operation, of which five originated from foreign suppliers.⁸ The urgency can be illustrated by the case of parts needed for a radio search and rescue signal that was difficult for Iraq to intercept during a period when Saddam Hussein was trying to capture downed pilots for propaganda value. The Department of Commerce contacted the British and Japanese embassies for help; a

⁵ C. Fred Bergsten and Marcus Noland. *Reconcilable Differences? United States-Japan Economic Conflict*. Peterson Institute for International Economics, June, 1993. P. 141.

⁶ US General Accounting Office. 1991. *US Business Access to Certain Foreign State-of-the-Art Technology*. Washington: US General Accounting Office. September.

⁷ “National Security Takeovers and Technology Preservation”, Hearings before the Subcommittee on Commerce, Consumer Protection, and Competitiveness of the Committee on Energy and Commerce. House of Representatives, February 26 and June 12, 1991, p 179.

⁸ U.S. General Accounting Office. *Defense Industrial Base: An Overview of an Emerging Issue*. GAO/NSIAD-93-68. March 1993. p. 8

subsequent GAO investigation found no evidence that foreign companies or governments did not freely cooperate with the United States to expedite these five orders.⁹

Threat II

Threat II embodies the concern that the proposed acquisition would allow transfer of technology or other expertise to a foreign-controlled entity that might be deployed by the entity or its government in a manner harmful to that country's national interests. The need to worry whether a foreign acquisition might enable the acquiring company, or its home government, to transfer some capability to a third party again depends upon how broadly available is the additional production or managerial expertise involved, and how big a difference would the acquisition make for those who seek its output.

In the US experience, the prototypical case for Threat II can be found in the proposed acquisition of the LTV missile business by Thomson-CSF of France in 1992. Most LTV's missile division capabilities were sufficiently close to those of multiple alternative suppliers that Thomson-CSF could obtain them elsewhere with relative ease. Three product lines – the MLRS multiple rocket launcher, the ATACM longer ranger rocket launcher, and the LOSAT anti-tank missile – however, had few or no comparable substitutes, and one – the ERINT anti-tactical missile interceptor -- included highly classified technology that was at least a generation ahead of rival systems and virtually unique at the time. From the point of view of the United States, Thomson-CSF was fifty-eight percent owned by the French government, and – in any case – had a long history of following French government directives in most intimate fashion. Prior Thomson-CSF sales to Libya and Iraq revealed important differences between how France and the United States defined their national interests: a Thomson-built Crotale missile had shot down the sole US plane lost in the 1986 US bombing raid on Tripoli, and Thomson radar had offered Iraq advance warning in the first Gulf War. US objections to the Thomson-CSF offer showed a legitimate concern about leakage of unique capabilities that might harm home country national interests.

As in the case the Threat I, the assessment tool offered here also provides the capability of distinguishing when a national security concern is unwarranted. Lenovo's acquisition of IBM's PC business in 2005 benefits from the same Threat II assessment, while leading to the opposite conclusion. Might the Lenovo acquisition represent a worrisome outflow of tightly held capabilities to China? Competition among personal computer producers is sufficiently intense that basic production technology is considered "commoditized": more than a dozen producers compete for fifty percent of the PC market, with no one showing a predominant edge for long. PC assembly is much less concentrated than some hardware or software components. An as-yet imaginary proposed foreign acquisition of Intel or Cisco would – and should – arouse serious US national security concerns. But the offer to acquire a PC assembler should not. It is farfetched to think that Lenovo's acquisition of IBM's PC business represented a "leakage" of sensitive technology, or

⁹ *Ibid.*

provided China with military-application or dual-use capabilities that are not readily available elsewhere.

Threat III

Threat III springs from worry that the proposed acquisition might allow insertion of some potential capability for infiltration, surveillance, or sabotage – via a human agent, or non-human agent -- into the provision of goods or services crucial to the functioning of that economy. The Dubai World Ports (DWP) case brought to the fore concerns among some in the United States that the new owner might be less than vigilant in preventing hostile forces from infiltrating the operations of the acquired company, or might even be complicit in facilitating surveillance or sabotage. In 2005 DWP sought to acquire the Peninsular and Oriental Steam Navigation Company (P&O), a British firm. P&O's main assets were terminal facilities owned or leased in various ports around the world, including facilities at six US ports—in Baltimore, Houston, Miami, New Orleans, Newark, and Philadelphia. The Committee on Foreign Investment in the United States (CFIUS) initially approved the acquisition, but only after the Department of Homeland Security negotiated a “letter of assurance” with DP World headquarters stipulating that Dubai Ports would operate all US facilities with US management, would designate a corporate officer with DP World to serve as point of contact with DHS on all security matters, would provide requested information to DHS whenever requested, and would assist other US law enforcement agencies on any matters related to port security, including disclosing information as US agencies requested. But hostile furor in the US Congress led DP World to withdraw the proposed acquisition.

Threat III figured prominently in the assessment of Bain Capital's 2007 proposal to acquire 3Com, a leading US hardware and software network company, with 16.5 percent minority shareholding by Huawei (including the right to appoint three of eleven Board members). Huawei was founded by in 1988 by a former Chinese Army officer, Ren Zhengfei. Of concern to CFIUS members, the Rand Corporation reported that Huawei maintains close ties with the Chinese government, in particular the People's Liberation Army (PLA).¹⁰ The DOD 2008 Annual Report to Congress on the Military Power of the People's Republic of China identified Huawei as working closely with the PLA on techniques of cyber warfare.¹¹ Addressing Threat I first, could the Bain purchase, with the Huawei minority stake, lead to circumstances (perhaps during a US-China crisis over Taiwan) in which critical 3Com capabilities were withheld from US users? It would appear implausible that a minority interest acquired by Huawei Technologies would be

¹⁰ Evan S. Medeiros, Roger Cliff, Keith Crane, James C. Mulvenon. *A New Direction for China's Defense Industry*. Santa Monica, CA. Rand, 2005.

¹¹ U.S. Department of Defense. *2008 Annual Report to Congress: Military Power of the People's Republic of China*.

enough to allow Chinese interests – or, ultimately, the Chinese government – to dictate how 3Com goods and services were offered for sale in the market. Turning to Threat II, would the Bain purchase, with the Huawei minority stake, allow the “leakage” of sensitive technology or other capabilities to Chinese users that they would not otherwise have access to? The evidence indicates that most of the router, switches and internet card capabilities of 3Com products are rather widely available commercially for Chinese use, many involving hardware and software already produced in China. Threat III considerations focus on whether a Huawei ownership stake (and three Huawei Board Members) might enable the Chinese to engage in espionage or sabotage of US infrastructure. A special case of Threat III is that the proposed acquisition might provide insight into weak points of a system that even purchasers and users (including USG users) might not be fully aware of. Some analysts asserted that a manufacturer like 3Com would have special modes of entering or manipulating its own systems, potentially allowing China, via Huawei, to identify vulnerabilities to which US government, US military, and other buyers might be unwittingly exposed, especially in 3Com’s integrated security and intrusion-protection system. Others disagreed. Before the empirics were settled, Bain withdrew its offer.

II. A Common Approach for OECD, and Beyond

The utility of this framework does not rely upon agreement among the community of nations as to which countries might be considered “good” states and which might be characterized as “bad” (or “hostile” or “rogue” or “unreliable”) states. Rather, this framework is constructed with a realpolitik assessment that governments have different and sometimes seriously conflicting conceptions of their own national interests. This framework leaves national authorities where a foreign acquisition is proposed to ponder carefully whether such acquisition would credibly pose any of the three threats identified here.

The fundamental value of this framework is to separate instances where any one of the threats might be plausible, from those where any one of the threats are not plausible, in a manner that might be commonly acceptable by all nations. That is, individual states could base their own behavior around this threat assessment framework, while recognizing that they can live comfortably within a global regime in which others behave in mirror-image fashion.

When is the blockage of foreign acquisitions pure “protectionism”? The framework offered here does not attempt to second-guess the specific motives for any given rejection of a proposed foreign acquisition; rather, the intension is to offer a rigorous line of reasoning to separate when assertions of threat are credible, and when they are not. While there will always be close-calls along the margin, the experience from the United States suggests that public officials need a decision-tree to help them determine when many high-profile contentions are simply bogus (often fueled at least in part by acquisition-minded competitors).

As the analytic community within OECD member states – and beyond – contemplates the adaptation of this framework for common use, it may be useful to reiterate and expand upon some key issues.

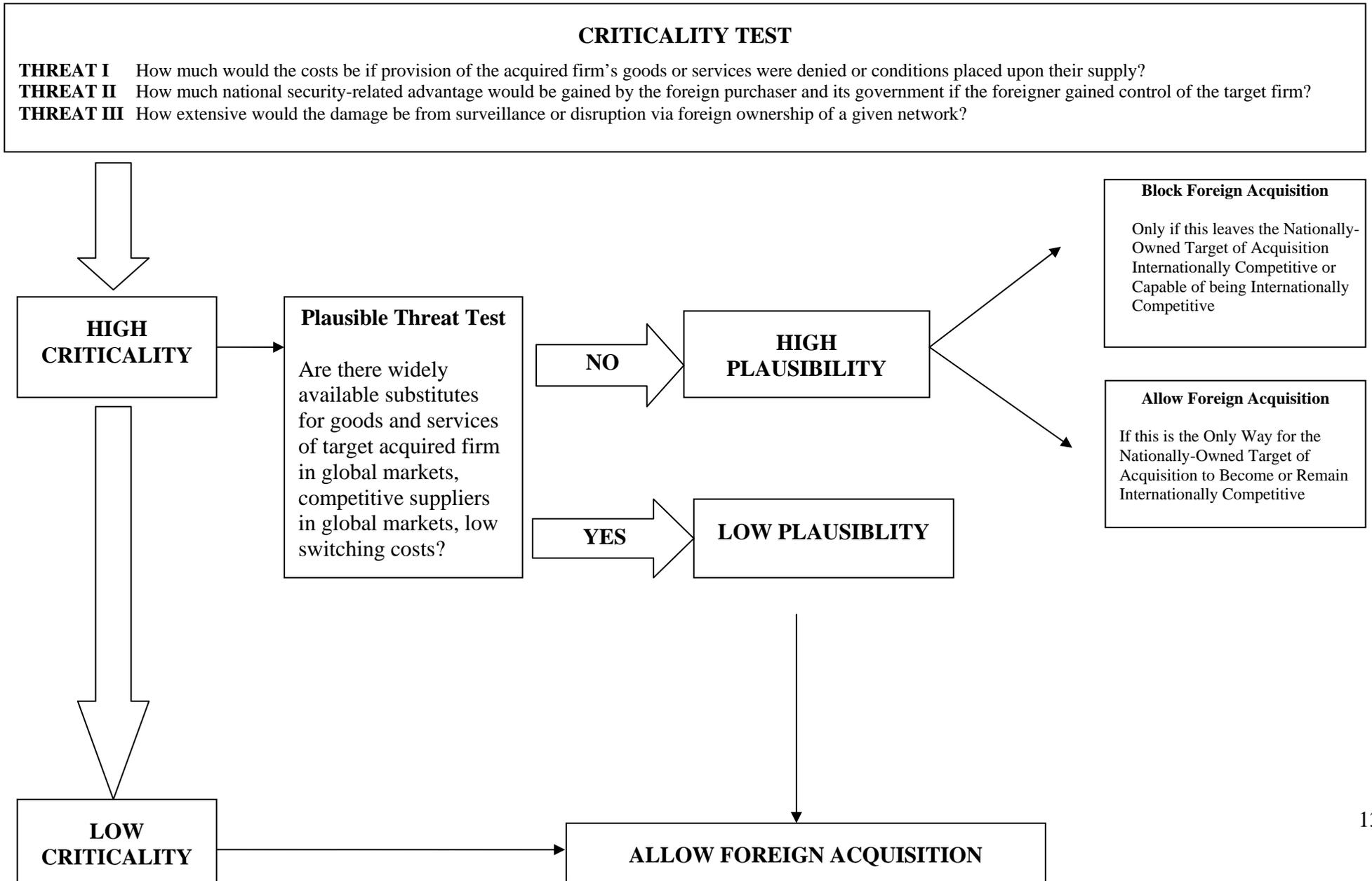
First, it is important to recognize that the argument that the goods or services provided by the target of a foreign acquisition are *critical* to the national interest is a necessary but NOT a sufficient condition to block the acquisition. To assess whether a foreign transaction poses any or all of these three threats, the assessment process may well begin by a “criticality” determination; that is, a determination of what the costs would be if provision were denied or manipulated (Threat I), or of how much advantage the foreign purchaser and its government would gain through the acquisition of specialized knowledge or technology (Threat II), or of how extensive the damage would be from surveillance or disruption in the acquired company or network (Threat III). But this assessment of “criticality” must be combined in each case with a second assessment to determine the availability of alternative suppliers and the ease of switching from one to another. When competition among rival suppliers is high and switching costs are low, there is no genuine national security rationale for blocking a proposed acquisition no matter how crucial the goods and services the target company provides.

Second, in assessing the degree of competition among suppliers and the switching costs, it is important to focus on the *global market*, not the domestic market. That is, the relevant measurement is whether a proposed acquisition increases the concentration in the global market to a worrisome extent, not whether the acquired firm is the “last” producer on “home country soil”. In the contemporary period, there will be many instances in which a foreign company may acquire the “last remaining” national producer of a given good or service, but the international market is sufficient competitive that this makes no substantive difference for the national security of the home country.

Third, there is a not-infrequent sub-case of Threat I in which a foreign acquisition might qualify for approval even though it increases concentration in the international industry to a worrisome extent. Often one company will consider acquiring another – or the second will seek to be acquired by the first – because the company-to-be-acquired is suffering in the marketplace and needs an infusion of cash or technology to survive and prosper. Silicon Valley Group found itself in such dire straits when ASML of the Netherlands proposed a take-over in 2000. The dilemma lay between becoming dependent upon a quasi-monopolistic foreign supplier and relying upon a less capable (and perhaps failing) national producer. Acknowledging this dilemma, the CEO of Intel nonetheless urged that CFIUS approve the acquisition.

These three points have been incorporated into the following decision-tree for OECD-Wide, or World-Wide assessment of when a proposed foreign acquisition might pose a national security threat, and when not.

**OECD-Wide (or World-Wide) Decision-Tree
When Is there a Plausible National Security Rationale to Block a Proposed Foreign Acquisition?**



(Note: Threat III is most tricky to fit entirely into this framework. What if a foreign company proposed to acquire power facilities that supply crucial military installations? If those military installations could switch to alternative suppliers rapidly and easily in a crisis if they feared power being cut off (Threat I), the rationale for blocking the foreign acquisition would be weak. What if a foreign company proposed to acquire the supplier of network security services that protected the offices of key home country ministries? Such an acquisition might offer a backdoor into surveillance or espionage (Threat III) even if the number of alternative network security services were high. In such a case it might not be advisable to block the foreign acquisition, but it would be sensible to direct the home country ministries to switch to an alternative network security provider.)

Fourth, whether the target of proposed acquisition is, or is not, a supplier to the national military is – oddly enough -- not of analytical importance for Threat I, independent of consideration of the number of rival suppliers and the switching costs. A competitive well-diversified foreign supplier-base for any given country's defense industries -- that may well include foreign providers of goods and services alongside domestic companies - - is a source of strength for that country's military, not a source of weakness.¹² For Threat III, however – foreign acquisition as a method of infiltration, surveillance, or espionage vis-à-vis national government or military purchasers of the goods and services from the acquired company – the issue of whether the military, DOD, or USG agencies are customers again becomes important.

Finally, this threat assessment tool is built around assessing the probability that collusion could be wielded by foreign owners (Threat I), or that control over the disposition of output could be preserved by the United States (Threat II), or that a user could avoid being locked into a compromised network (Threat III). Where might where the OECD analytic community – and others – look for an objective standard of how much concentration is worrisome? How precise and accurately can this probability be estimated? Is there some strict measurement procedure that can be used to guide OECD-wide – or world-wide -- decision-making?

The most obvious beginning place to look to operationalize concern about market control and collusion is to turn to the long-standing US Department of Justice/Federal Trade Commission -- and the similar EU DG for Competition -- guidelines on mergers and acquisitions.¹³ Drawing on oligopoly theory, these guidelines try to set out how concentrated an industry must be to offer a plausible likelihood that the members can

¹² For the applicability of this argument to the US military, see Jacques Gansler, *The 21st Century Defense Industry*, forthcoming, 2010.

¹³ U.S. Department of Justice/Federal Trade Commission. *Commentary on the Horizontal Merger Guidelines*. March 2006. www.usdoj.gov/atr/public/guidelines/215247.htm. European Union, European Commission's Directorate-General for Competition.(EU DG Competition), January 2008. http://ec.europa.eu/comm/competition/general_info/h_en.html

collude successfully (to restrict production, raise prices, or engage in some other collective manipulation of the market).¹⁴ They start by looking at the concentration ratio in the industry – say, three firms controlling 60 percent of the market – but a simple concentration ratio ignores how large in size and abundant in number are the remaining firms in the industry.

The standard method to correct for this defect is to employ the Herfindahl-Hirschmann Index (HHI), which is the sum of the squares of the market shares of all market participants. This Index shows how far the market concentration deviates from an industry in which all firms have an equal size, an outcome with least chance of successful collusion. In both US and EU law, with an HHI below 1000 market concentration is considered low, with an HHI between 1000 and 1800 market concentration is considered moderate, and with an HHI above 1800 market concentration is considered high. The next step is to consider how a proposed acquisition will affect the concentration of the industry. Cases that merit US Department of Justice/Federal Trade Commission scrutiny are those in which the post-acquisition HHI falls between 1000 and 1800, and the change in the HHI is less than 100, or the post-acquisition HHI is above 1800, and the change in the HHI is less than 50.

These break points are widely accepted as a guide to public policy. Transferred to the realm of foreign acquisition cases, these break points could quite reasonably become the basis OECD-wide standards, and for mirror-image legislation among countries around the world. But OECD and other strategists should not be misled about the precision that this use of the Herfindahl-Hirschmann index will afford. Actual cases vary considerably in the world of anti-trust¹⁵, and the same should probably be expected in the field of foreign acquisitions. The principal use of the Herfindahl-Hirschmann index will likely be to dismiss cases where market control and manipulation are highly implausible – a not un-useful accomplishment! – but cases along the margin will continue to be judgment-calls.

The framework introduced here complements and enhances the goals of transparency of policies, predictability of outcomes, measures of general application which treat similarly situated investors in a similar fashion, proportionality of measures and accountability of implementing authorities as set forth in the Guidelines for Recipient Country Investment Policies Relating to National Security (Recommendation adopted by the OECD Council on 25 May 2009). As a tool for threat assessment, moreover, it advances the purposes of the Guidelines in two ways. First, the OECD Guidelines permit that “essential security concerns are self-judging”; that is, “OECD investment instruments recognize that each country has a right to determine what is necessary to protect its national security”. The decision-tree presented above provides a common path for all OECD members to

¹⁴ Cf. Margaret C. Levenstein and Valerie Y. Suslow. “What Determines Cartel Success?” *Journal of Economic Literature*. Vol. XLIV (March 2006), pp. 43-95.

¹⁵ U.S. Department of Justice/Federal Trade Commission. *Commentary on the Horizontal Merger Guidelines*, *op. cit.*, p. 22.

evaluate whether concerns about a possible national security threat are plausible. Second, the OECD Investment Committee occasionally uses the term “Strategic Industries” in ways that suggest entire sectors – energy, military suppliers, financial institutions, infrastructure – might be excluded from foreign takeovers, whereas the threat assessment tool developed here allows discrimination as to when a proposed foreign acquisition within such sectors might pose a threat and when not.

III. The Broader Context: Allowing the Benefits from Foreign Direct Investment (FDI) – including FDI via Acquisitions – to Spread around the World

The Washington Consensus -- that all FDI is good, and the more, the better – has to be supplanted by a much more nuanced view acknowledging that only within a relatively competitive, open, transparent economic policy-setting does FDI offer optimal contribution to host country growth and welfare.¹⁶

Within such an economic policy-setting (competitive, open, transparent), however, the positive results from cross-border FDI – including FDI that takes place via acquisition of local firms -- are striking. The most detailed data are collected by the US Bureau of Economic Analysis (BEA). US affiliates of foreign multinationals account for a disproportionately large share of US exports (19 percent), physical capital expenditures (10 percent), and R&D expenditures (13 percent).¹⁷ In the most recent assessment (2004) US affiliates of foreign firms owned \$5.5 trillion in assets, produced \$515 billion of goods and services within the United States, and accounted for 5.7 percent of total US private output, up from 3.8 percent in 1988.¹⁸ US affiliates of foreign multinationals employed 5.1 million workers, equal to 4.7 percent of the US workforce, up from 3.6 percent in 1988.

In terms of raising US living standards by improving access to “good jobs”, foreign-owned plants in the United States are more capital intensive, more productive, use a higher proportion of nonproduction workers, and pay higher wages than the average US-owned plant.¹⁹ Controlling for industry, size, age, and state (location), foreign-owned

¹⁶ Theodore H. Moran. *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research, Avoiding the Mistakes of the First*, Peterson Institute of International Economics, forthcoming 2010. Edward M. Graham and David M. Marchick, 2006. *US National Security and Foreign Direct Investment*. Washington: Peterson Institute for International Economics. Ch. 3.

¹⁷ Bernard, Andrew B., J. Bradford Jensen, Peter K. Schott. 2005. *Importers, Exporters and Multinationals: A Portrait of Firms in the U. S. that Trade Goods*. Cambridge, Mass. NBER Working Paper No. 11404, June.

¹⁸ *Economic Report of the President*, 2007.

¹⁹ Mark E. Doms and J. Bradford Jensen. 1998. “Comparing Wages, Skills, and Productivity Between Domestic and Foreign Owned Manufacturing Establishments in the United States,” *Geography and Ownership as Bases for Economic Accounting*, ed. Robert E. Baldwin, Robert E. Lipsey, and J. David Richardson, National Bureau of Economic Research and

plants in the US still show superior operating characteristics compared to domestically owned plants. Foreign-owned plants in the US pay wages 2.5 to 7 percent higher than at comparable domestic plants.²⁰ The performance of foreign affiliates is second only to the performance of the US plants of American multinationals. David Figlio and Bruce Blonigen find that foreign investment raises local real wages more than does domestic investment.²¹

Similarly, foreign investors in the United States spend more on R&D in the United States than other similar firms, only slightly behind the rate of R&D expenditures of US parents of US multinationals (the most R&D intensive of all firms in the United States).²² In some subsectors – computer manufacturing and communications equipment (which included telecommunications equipment) – the affiliates of foreign firms spend a greater portion of value added on R&D than US parents of multinationals in the same subsector do. Whether because of these R&D expenditures or because of imports of external R&D, it turns out that these inflows of foreign investment into the United States constitute an important channel for technology spillovers to domestic companies, especially in high tech sectors. Wolfgang Keller and Stephen Yeaple calculate that between eight and nineteen percent of *all productivity growth* among US firms between 1987 and 1996 was derived from the growing presence of non-US investors in the US economy.²³ The positive impact was disproportionately large in US high tech sectors, namely chemicals, computers and office equipment, electronic components, scientific instruments, and medical instruments.

Similar results hold for inward foreign investment flows – including inward foreign investment flows via acquisition – throughout the OECD. Susan Feinberg and Michael Keane find that intra-firm transactions across borders speed knowledge-flows, production coordination, and marketing transactions more rapidly and more extensively than simple

University of Chicago Press.

²⁰J. David Richardson. 2005. Uneven Gains and Unbalanced Burdens? Three Decades of American Globalization. In *The United States and the World Economy: Foreign Economic Policy for the Next Decade*. C. Fred Bergsten. Washington: Institute for International Economics.

²¹ David N. Figlio and Bruce A. Blonigen. “The Effects of Foreign Direct Investment on Local Communities” *Journal of Urban Economics*, Vol. 48 (September 2000), pp. 338-363.

²² Edward M. Graham and David M. Marchick, 2006. *US National Security and Foreign Direct Investment*. Washington: Peterson Institute for International Economics. *Op. cit.*, Ch. 3. The comparison is for majority-owned affiliates of foreign investors in the United States.

²³ Wolfgang Keller and Stephen R. Yeaple. 2008. *Multinational Enterprises, International Trade, and Productivity Growth; Firm-Level Evidence from the United States*. Draft. February 2008.

arms-length trade relationships.²⁴ Bruce Blonigan, Christopher Ellis, and Dietrich Fausten find that Japanese keiretsu investors bring agglomeration externalities in both the vertical and the horizontal direction when they set up plants anywhere in the world.

In the developing world, large flows of trade-and-investment are associated with high rates of host country growth, but there is analytic debate about the direction of causality – whether large flows of trade-and-investment lead to high rates of host country growth or high rates of host country growth result in large flows of trade-and investment. Research undertaken at the Peterson Institute of International Economics has shown conclusively that when trade-and-FDI liberalization go together they cause higher-than-trend rates of host country growth.²⁵ As part of this process, there are sometimes horizontal spillovers. More frequently, the data show vertical spillovers as foreign investors build supply-chains in the host economy to the extent local business conditions permit. The success of export led growth in Asia has grown directly out of “contract manufacturing” by indigenous companies in the electronics industry. In Latin America, major industrial poles in Mexico and Brazil have emerged around local Original Equipment Manufacturers of auto parts in the international automotive industry.

The exact results depend upon the policy regime of the hosts.²⁶ The one generalization that is possible is the one that is most important: within reasonably competitive, open, and transparent policy-settings, the participation of foreign investors raises both the level of welfare and the growth rate of the local economy in highly significant ways. It is in the interest of both home and host countries around the world to maintain a global regime that allows international investment flows steadily to expand.

²⁴ Susan E. Feinberg and Michael P. Keane. “Accounting for the Growth of MNC-Based Trade Using a Structural Model of U. S. MNCs”. *The American Economic Review*. Volume 96, No. 5, December 2006, pp. 1515-1558. Michael P. Keane and Susan E. Feinberg. “Advances in Logistics and the Growth of Intra-firm Trade: The Case of Canadian Affiliates of U. S. Multinationals, 1984-1995”. *The Journal of Industrial Economics*. Volume LV, No. 4, December 2007. Pp. 571-632. “Tariff effects on MNC decisions to engage in intra-firm and arms-length trade”. *Canadian Journal of Economics*. Vol. 42, No. 3, August 2009.

²⁵ Marc J. Melitz. “Comment” in Moran, Theodore, Edward M. Graham, and Magnus Blomstrom, eds. *Does Foreign Direct Investment Promote Development?* Washington: Peterson Institute for International Economics, 2005), pp. 221-243.

²⁶ Theodore H. Moran. **Foreign Direct Investment and Development: Launching a Second Generation of Policy Research, Avoiding the Mistakes of the First.** Washington, DC: Peterson Institute of International Economics, forthcoming 2010.

BIBLIOGRAPHY

- Barton, Representative Joe, (R-Texas) and/or Representative Duncan Hunter (R-CA)
Press statements on CNOOC's proposed acquisition of Unocal.
- Bergsten, C. Fred and Marcus Noland. 1993. *Reconcilable Differences? United States-Japan Economic Conflict*. Washington: Peterson Institute for International Economics, (June): 141.
- Bernard, Andrew B., J. Bradford Jensen, Peter K. Schott. 2005. *Importers, Exporters and Multinationals: A Portrait of Firms in the U. S. that Trade Goods*. Cambridge, Mass: NBER Working Paper No. 11404, (June).
- Doms, Mark E. and J. Bradford Jensen. 1998. Comparing Wages, Skills, and Productivity between Domestic and Foreign Owned Manufacturing Establishments in the United States. In *Geography and Ownership as Bases for Economic Accounting*, ed. Robert E. Baldwin, Robert E. Lipsey, and J. David Richardson, National Bureau of Economic Research and University of Chicago Press.
- Economic Report of the President, 2007*.
- Graham, Edward M. and David M. Marchick. 2006. *US National Security and Foreign Direct Investment*. Washington: Peterson Institute for International Economics. Ch. 3.
- European Union, European Commission's Directorate-General for Competition. (EU DG Competition), 2008.
http://ec.europa.eu/comm/competition/general_info/h_en.html. (January).
- Feinberg, Susan E. and Michael P. Keane. 2006. Accounting for the Growth of MNC-Based Trade Using a Structural Model of U. S. MNCs. *The American Economic Review*, Volume 96, No. 5, (December): 1515-1558.
- Feinberg, Susan E. and Michael P. Keane. 2009. Tariff effects on MNC decisions to engage in intra-firm and arms-length trade. *Canadian Journal of Economics*, Vol. 42, No. 3 (August).
- Gansler, Jacques. forthcoming, 2010. *The 21st Century Defense Industry*.
- Keane, Michael P. and Susan E. Feinberg. 2007. Advances in Logistics and the Growth of Intra-firm Trade: The Case of Canadian Affiliates of U. S. Multinationals, 1984-1995. *The Journal of Industrial Economics*, Volume LV, No. 4 (December): 571-632.
- Levenstein, Margaret C. and Valerie Y. Suslow. 2006. What Determines Cartel Success? *Journal of Economic Literature*, Vol. XLIV (March): 43-95.
- Marchick David M. and Matthew J. Slaughter. 2008. *Global FDI Policy*. New York: Council on Foreign Relations, (June).

- Medeiros, Evan S. Roger Cliff, Keith Crane, James C. Mulvenon. 2005. *A New Direction for China's Defense Industry*. Santa Monica, CA: Rand.
- Melitz, Marc J. 2005. Comment. in *Does Foreign Direct Investment Promote Development?* Theodore Moran, Edward M. Graham, and Magnus Blomstrom, eds. Washington: Peterson Institute for International Economics: 221-243.
- Moran, Theodore H. forthcoming 2010. *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research, Avoiding the Mistakes of the First*. Washington: Peterson Institute of International Economics.
- Moran, Theodore H. forthcoming, 2010. *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research, Avoiding the Mistakes of the First*, Peterson Institute of International Economics.
- Richardson, J. David. 2005. Uneven Gains and Unbalanced Burdens? Three Decades of American Globalization. In *The United States and the World Economy: Foreign Economic Policy for the Next Decade*. C. Fred Bergsten. Washington: Institute for International Economics.
- Roller, Lars-Hendrik and Nicolas Veron. 2008. *A European Approach to Sovereign Investment*. Policy Brief 2008/08. Brussels: Breugel. (October).
- Subrata Bhattacharjee. 2009. *National Security with a Canadian Twist: The Investment Canada Act and the New National Security Review Test*. New York: Vale Columbia Center on Sustainable International Investment. Columbia FDI Perspectives, No. 10. (July).
- U.S. Department of Defense. 2008. *Annual Report to Congress: Military Power of the People's Republic of China*.
- U.S. Department of Justice/Federal Trade Commission. 2006. *Commentary on the Horizontal Merger Guidelines*. (March).
<http://www.usdoj.gov/atr/public/guidelines/215247.htm>.
- U.S. General Accounting Office. 1991. *U.S. Business Access to Certain Foreign State-of-the-Art Technology*. Washington: U.S. General Accounting Office. (September).
- U.S. General Accounting Office. 1993. *Defense Industrial Base: An Overview of an Emerging Issue*. GAO/NSIAD-93-68. (March): 8.
- U.S. House of Representatives. Subcommittee on Commerce, Consumer Protection, and Competitiveness of the Committee on Energy and Commerce 1991. *National Security Takeovers and Technology Preservation*. Hearings. (February 26 and June 12): 179.
- Wolfgang Keller and Stephen R. Yeaple. 2008. *Multinational Enterprises, International Trade, and Productivity Growth; Firm-Level Evidence from the United States*. Draft. (February).