Towards a Political Economy of Tobacco Control in Low- and Middle-Income Countries

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August 2009
Abstract: This study provides the basis for constructing a political economy of tobacco control in low- and middle-income countries (LMICs). We first undertook a literature review of tobacco control in LMICs to explore the forces that oppose the adoption, implementation, and enforcement of tobacco control strategies. We then used the sources we collected to conduct a stakeholder analysis, as a first step in constructing a political economy of tobacco control in LMICs. We focused primarily at the international level because of the dominant role of transnational tobacco companies (TTCs).

Our review of the literature suggests four broad conclusions. First, a political economy approach has been applied only rarely as a formal analytical methodology in the literature on the tobacco control in LMICs. Second, even when the term “political economy” was used in a document, the paper typically did not explicitly conduct this kind of analysis and did not directly consider political strategies for advancing tobacco control. Third, translating the Framework Convention on Tobacco Control into tobacco use reductions at the national level is likely to require national-level political economy analyses to define political strategies appropriate to the particular national setting. Fourth, tobacco control’s present and past are well documented, but analyses of future scenarios have focused on projections of health consequences and smoking trends. How TTCs will try to grow in the future has not been adequately addressed in the literature.

Our stakeholder analysis suggests several conclusions that may help policymakers and the tobacco control community better navigate the politics of tobacco. LMICs with high rates of tobacco use are likely to face many of the same obstacles as have been overcome in some developed countries, including scientific controversies that confuse the medical and policymaking debates surrounding tobacco. The imbalance between the economic power of tobacco and the relative weakness of public health highlights the importance of effectively communicating accurate information about tobacco’s full costs and the need for coalition building and cooperation.
Logic and experience both suggest that there is less opposition to establishing tobacco control measures either before TTCs enter a market or when tobacco consumption rates are low and when the economic importance of the product is low. Delays in this task translate to further advantages for the industry: in money as its sales increase, in influence as it grows in economic importance in more places, and in addiction as more smokers become dependent on nicotine. Broad coalitions are fundamental to generating the political power to establish and enforce anti-tobacco regulations.

Our stakeholder analysis also yielded recommendations for policymakers and coalition builders at the country and global levels. At the country level, our review suggests the use of both supply-side and demand-side interventions, but not trade barriers. At the global level, our review suggests the possibility of litigating to hold TTCs accountable for smuggled cigarettes. Also, those working at the global level can help connect control advocates at the national or local levels, for instance, by facilitating meetings and conveying helpful evidence. Assisting these advocates with fundraising and research projects has the potential for high impact.

Our findings suggest that most researchers of tobacco control have yet to take advantage of political economy tools. The technique of stakeholder analysis employed in the present paper is only one of many political economy approaches that could be applied. Other potentially fruitful approaches include political mapping and studying the incentives and relationships that bind actors together. At both the global and country levels there is an urgent need to deepen analyses.

Researchers at the global level have an opportunity to develop simple and powerful political economy techniques that can help LMIC policymakers design and implement politically effective control strategies. At the country level researchers are well positioned to analyze the national politics of tobacco control and develop detailed strategies for building support and forming coalitions.

**Keywords**: Political economy, tobacco control, developing countries, stakeholder analysis, literature review.

**Disclaimer**: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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ACKNOWLEDGEMENTS

We would like to thank many people for their assistance in identifying sources, understanding themes, and helping us interpret the evidence. We express our gratitude to Cassandra Welch and Tom Glynn at the American Cancer Society, Greg Connolly, Vaughn Rees, and Hillel Alpert at the Harvard School of Public Health, Derek Yach at PepsiCo, Laurent Huber at the Framework Convention Alliance, SJ Habayeb and Vineet Gill Munish at WHO/India, and Mike Engelgau at the World Bank. Sylvia Robles, formerly with the World Bank, contributed to the commissioning of the study. Dai Hozumi at PATH and Mike Engelgau each reviewed a complete draft of the study and provided helpful and insightful comments.

We would also like to thank Inas Ellaham and Selina Khan at the World Bank for their assistance with administration, logistics and formatting support at the World Bank. We are very grateful for their patience and pleasant efficiency.

The authors are grateful to the World Bank for publishing this report as an HNP Discussion Paper.

The contributions of authors are as follows:

**Jesse Bump**: Participated in the overall design of the study and analytical framework; conducted literature review and political economy analysis; drafted and revised text.

**Michael Reich**: Participated in the overall design of the study and analytical framework; reviewed and revised outlines and drafts; provided extensive comments and revised final text.

**Olusoji Adeyi**: Identified political economy as key to effective tobacco control and a poorly articulated aspect of current global approaches, commissioned the study, reviewed a draft and provided specific inputs.

**Sonalini Khetrapal**: Reviewed successive drafts and provided inputs on political economy approaches. Provided examples from developing countries to help illustrate analytical themes.
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PART I – INTRODUCTION

Along with HIV/AIDS, tobacco is the world’s only large and growing cause of death (Jha, Chaloupka et al. 2006b). Tobacco kills half of its regular users and is the world’s leading preventable cause of death—5.4 million lives annually—and by 2015 is expected to account for 10% of all deaths globally (Mathers and Loncar 2006; WHO 2008a). Tobacco’s toll in the twentieth century was one hundred million lives; in the twenty-first century this toll is expected to reach one billion lives unless effective anti-use and quitting campaigns are implemented (Shafey, Eriksen et al. 2009). Advocates for tobacco control routinely cite these tremendous health costs. But meaningful control measures are opposed by the tobacco industry and its allies. These supporters frequently invoke economic arguments that cast tobacco as a source of national economic strength, and point to employment, tax revenues, and philanthropy to demonstrate their case (Warner 2000; Frieden and Bloomberg 2007; WHO 2008a).

In broad terms, the discussion over tobacco is usually conducted along these lines of health costs versus economic benefits. On strictly utilitarian grounds, the debate might have ended with the finding that a full accounting of tobacco’s costs exceeds tobacco’s benefits (Jha 1999; Warner 2000; Jha, Chaloupka et al. 2006b). However, there is little consistency among countries in regulatory approaches, control policies, or even the extent to which tobacco’s health risks are understood. According to the World Health Organization (WHO), only 5% of the world’s population is protected by even one of the six recommended comprehensive tobacco control interventions (WHO 2008a).

As tobacco use has declined in rich countries, transnational tobacco companies (TTCs) have increasingly focused on expanding markets for their products in low- and middle-income countries (Martinez and Grise 1990; Connolly 1992; Mackay 1992; Wagner and Romano 1994; Holzman 1997; Chelala 1998; Mackay and Eriksen 2002). The result of this shift has been a rise in smoking rates in countries targeted by TTCs, despite solid evidence on the dangers of tobacco consumption and on effective control strategies. Many of the patterns that characterized the rise of smoking in developed countries in the twentieth century are now unfolding elsewhere in the world. As a consequence, tobacco-related morbidity and death are rising as well. In China alone, some 100 million people now living are expected to die from tobacco use (Martinez and Grise 1990; Slama 2008; WHO 2008a).

As Jha and coauthors observe, one reason tobacco has not been effectively controlled in most countries is that its political economy remains inadequately understood. Scholars and policymakers have paid insufficient attention to the interactions of the political and economic dimensions of this issue in general, and have been out-maneuvered by TTCs in many cases (Jha, Chaloupka et al. 2006a; Jha, Chaloupka et al. 2006b).

This paper provides the basis for constructing a political economy of tobacco control in low- and middle-income countries. First, we review the available literature on tobacco control in LMICs to illuminate some of the barriers to adopting, implementing, and
enforcing tobacco control policies. Following this introduction we begin Section II by defining political economy and applying it to the problems of tobacco control in LMICs. In Section III, we summarize the current national-level control policies as recommended in the WHO MPOWER Report, and then turn to a discussion of the report’s limitations. In Section IV, we describe our literature search strategy and in Section V we present the results of the literature review. In Section VI we begin constructing a political economy of tobacco control, based on the results of the literature review and using stakeholder analysis as a method. In Section VII we offer some conclusions for policymakers and coalition builders at the country and global levels. We also offer conclusions for researchers at each level. In Annex I we present a diagnostic framework to help policymakers identify the political economy issues most likely to arise in a given setting.
DEFINING POLITICAL ECONOMY

As Henry George wrote in the 1890s, “political economy” is hard to define and has meant different things at different times and places, even if its classic works are easy to identify, such as Adam Smith’s *An Inquiry into the Nature and Causes of the Wealth of Nations* (George 2006). In the century since George’s death, no standard definition has emerged. Over time, the meanings of “political economy” have evolved through usage. Many authors have employed the term to indicate the application of economic tools to political problems, or to refer to the interaction of political and economic factors in shaping broad social decisions.

In health and medical journals “political economy” has become increasingly popular in recent decades as a lens through which to view tobacco control. No doubt this trend reflects an appreciation of the strong influence that the politics and economics of tobacco have had on regulation and control policies and perhaps also a frustration that health arguments alone have been insufficient to produce effective control of cigarettes around the world. A PubMed search for the keywords “political economy tobacco” yielded 121 citations. None were older than 1980, and in the decades of the 1980s, 1990s, and 2000s (thus far) there were 19, 37, and 64 papers, respectively. The earliest paper was written by a political scientist, Harvey Sapolsky at MIT (Sapolsky 1980), but in recent years this type of analysis has been embraced by tobacco control scholars trained in other disciplines, including economics, medicine, and epidemiology.

The present analysis follows in the broad political economy tradition of analyzing the interaction of political and economic factors to understand how tobacco consumption and tobacco control policies have evolved in low- and middle-income countries. This analysis focuses primarily at the international level because of the dominant role played by TTCs in the political economy of tobacco worldwide. The analysis follows their actions at the national and local levels, where materials are available, to understand the impacts on national policy responses. Domestic tobacco companies are not included because they are less important than TTCs as drivers of smoking globally and because the literature we reviewed contained very little information on their political economy.

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1 Current as of March 2009. The PubMed search translation details were: political[All Fields] AND ("economics"[MeSH Terms] OR "economics"[All Fields] OR "economy"[All Fields]) AND ("tobacco"[MeSH Terms] OR "tobacco"[All Fields])

Almost all of the publications identified with this search include politics and economics in their analyses, but only a small subset apply political economy as understood by political scientists.
The political economy of TTCs can be understood within the context of oligopolistic, competing profit-maximizing, transnational firms (Shepherd 1985). Similar to other transnational firms, TTCs wield significant power and are not able to represent themselves directly at the multilateral agencies that have international authority. Consequently, TTCs exert their influence primarily by lobbying representatives of individual nations, although they use various overt and covert methods to influence international agencies, as well (Zeltner, Kessler et al. 2000; Mamudu, Hammond et al. 2008a; Mamudu, Hammond et al. 2008b). Yet TTCs and other transnational firms are not directly regulated by international agreements, such as the Framework Convention on Tobacco Control (FCTC), which went into effect in 2005 and calls on national governments (as signatories) to support cessation, discourage smoking, and limit tobacco production (WHO 2005). International agreements usually affect transnational firms indirectly because the agreements must be adopted and enforced by national authorities (Charney 1983; Sullivan 1985). In the case of TTCs, such agreements can create international conflicts, since the firm’s home country may benefit from activities whose costs are incurred in other countries (Frey 1997; Assunta and Chapman 2006). The power of TTCs and their involvement in many businesses and political processes have shown the limits of the nation state as a category of analysis to understand the fast-globalizing tobacco industry (Sklair 1998).

A review of formerly secret internal documents now available through the Legacy Tobacco Documents Library (LTDL) at the University of California, San Francisco shows that TTCs frequently compared themselves to mainstream consumer product companies and used many standard strategies to promote their wares. For instance, Proctor & Gamble is mentioned in over 4,300 documents, and Unilever is mentioned in over 6,700 documents. From 1985–1999 RJ Reynolds was part of RJR Nabisco, a large consumer products company with significant non-tobacco business, and from 1988–2007 Philip Morris owned Kraft, the world’s second largest food company. Involvement in many business has made TTCs hard to classify (Sklair 1998). Further, TTCs have regularly engaged mainstream business consulting firms such as McKinsey & Co., Bain & Co., and Boston Consulting Group, and frequently referenced profit maximization as a dominant corporate goal.2

More broadly, tobacco generates significant economic benefits for a diverse range of actors beyond TTCs. Farmers and makers of agricultural inputs benefit from the activities surrounding the growth of the tobacco leaf. Tobacco processors employ large numbers of people to transform the leaf into cigarettes and other consumer products. Distributors, retailers, and other players benefit from the direct sale of these products. Tobacco is also a major source of tax revenue for governments, and tobacco-related spending spreads widely to advertising agencies, the media, professional sports, and professional firms in law, public relations, accounting, and consulting, for instance (Abedian, Merwe et al. 1998; Jha 1999; Jha and Chaloupka 2000). The political economy of tobacco growing

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2 The Legacy Tobacco Document Library is available at http://legacy.library.ucsf.edu/
and processing has been investigated in some settings, including Tanzania (Boesen and Mohele 1979) and the United States (Green 1987).

The political economy of tobacco is complicated by the transnational character of its dominant firms, the uneven distribution of the industry’s costs and benefits, the magnitude of the economic benefits and health costs of cigarettes, and the diversity of actors with interests in the tobacco trade. Understanding how TTCs operate is essential to tobacco control policy, especially in the growing markets of the low- and middle-income countries. As shown in the literature we review, recent studies of TTCs have expanded our knowledge about how the tobacco industry operates and the challenges of tobacco control policy, largely because millions of pages of internal industry documents have been made public by the Tobacco Master Settlement Agreement, reached in the United States in November 1998. This study provides an assessment of the literature on the political economy of tobacco control in low- and middle-income countries, and suggests what could be done to advance research in this field.
Tobacco control policies are well known and researched, and have recently received international attention. In 2008 the World Health Organization released its MPOWER package, a state of the art presentation of proven tobacco control strategies and recent statistics on tobacco use and tobacco policies in 179 member countries (WHO 2008a). Twenty-seven countries representing over 85% of the world's smokers are profiled in depth, including consumption and prevalence data, plus details of production, imports, and exports for both leaf tobacco and cigarettes. An analysis of national legislation provides an overview of progress in each of the report’s six key policy areas:

- Monitor tobacco use and prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use
- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

The report serves as a valuable scoreboard in the struggle for effective tobacco control policies—and shows the limitations of current tobacco control policies at the national level. A summary figure from the report shows that most WHO member countries have minimal or no policies in five key areas (Figure 1):
Examining the report’s national policy data finds no consistent pattern of progress, with the partial exception of cessation programs (perhaps because such programs are generally supported by TTCs because they are expensive, reinforce the conception of smoking as an individual matter, and are usually ineffective on a population scale). One important reason for this lack of progress is that efforts aimed at curbing tobacco are staffed and funded at low levels. WHO calculates that in low-income countries for which data are available (representing 2 billion citizens), tobacco tax revenues amount to $13.8 billion, while spending on control activities is only about $1.5 million—more than 9,000 times less. In middle-income countries for which data are available (1.9 billion citizens), WHO calculates that this ratio is about 4200:1, with tax revenues of about $53 billion and control expenditures of $12.5 million. Low- and middle-income countries had an average of only five full-time staff members working on tobacco control at the national level (WHO 2008a).

Looking within countries finds no consistent pattern, either. In Argentina (adult smoking prevalence male: 35.1%; female: 24.9%)\(^3\), for instance, there is a national control agency and a cessation quitline, but there are no restrictions on advertising, no package warnings, and no spatial restrictions on smoking. Neighboring Brazil (M: 20.3%; F 12.8%) has a national control agency, a quitline, requires comprehensive graphic health warnings on cigarette packages, and bans most forms of advertising, but does not have any spatial

\(^3\) National smoking prevalence figures are not strictly comparable because “adult” refers to slightly different age groups.
restrictions on smoking. Mexico (M: 30.4%; F: 9.5%) also has a national control agency and stronger advertising restrictions than Brazil, but lacks a quitline, does not require meaningful package warnings, and does not have any spatial restrictions on smoking. In all three countries WHO’s affordability measure of the most popular brand is the same: 2% of annual income is required to buy 100 packs.

Three important countries in South Asia display similar heterogeneity. In Bangladesh (M: 48.6%; F: 25.4%), WHO rated advertising restrictions and pack warnings at medium strength, but found no spatial restrictions and reported only 2 national control staff with an annual budget of just $50,000. In India (M: 57.0%; F: 3.1%), policies are generally strong. A specific tax boosts the cost of 100 packs to 20% of average annual income, and smokers are further discouraged by pack warnings and some spatial restrictions. Advertising restrictions were rated 7/10. In Pakistan (M: 32.4%; F: 5.7%), advertising restrictions were rated only 4/10 and there were no treatments for dependence, but there were comprehensive spatial restrictions banning smoking in hospitals, schools, restaurants, government buildings, and other indoor spaces (WHO 2008a).

Status reports on national tobacco policies provide a useful measure of the current state of affairs, but this approach has serious limitations. The MPOWER report provides only a static picture without explaining how countries have made progress or what obstacles remain. More importantly, it includes only passing reference to the difficulties of implementing the recommended policies and the resistance strategies employed by TTCs. The challenge of controlling tobacco is evident in the continuing rise in global consumption, despite the WHO Framework Convention on Tobacco Control (FCTC) (WHO 2005) and despite legislative progress in many countries (WHO 2008b). For instance, FCTC’s 164 parties—most WHO member states—pledged to support tobacco control policies, including those described in the MPOWER report, and other policies such as economic alternatives for producers to limit tobacco supply. Politically informed strategies are required to convert these promising legal advances into enforceable national policies and ultimately into significant reductions in tobacco use.

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4 As of March 2009.
PART IV – LITERATURE SEARCH STRATEGY

To explore the forces that oppose the adoption, implementation and enforcement of tobacco control strategies, we undertook a literature review of the political economy of tobacco in low- and middle-income countries. Published literature was sought using four databases, the most important of which was PubMed. Secondarily, the EconLit, PsycInfo, and AGRICOLA databases were used to capture additional publications from the international trade, economics, behavioral science, and agriculture literatures. Unpublished literature was sought via requests to experts and Internet searches.

Our search strategy embodied several steps prompted by the initial finding that there were very few publications and reports directly applying political economy analysis to tobacco control in low- and middle-income countries. First, the complete literature on tobacco control was too large to review within the scope of the present project. In PubMed alone a search for “tobacco control” identified 18,754 papers and “tobacco” by itself generated 62,778 results. Second, to reduce the results to a more manageable and relevant subset, we searched for papers on any aspect of tobacco and low- and middle-income countries, as described above. To manage the over 2,500 results, we decided to focus on five substantive issues related to the political economy of tobacco control, chosen in consultation with World Bank staff members on the basis of their institutional experience in tobacco control and their discussions with multiple stakeholders:

1. Information problems concerning citizen knowledge of the dangers of tobacco use
2. The roles of producers, multinational corporations, and trade disputes in consumption
3. Smuggling
4. The barriers to raising taxes and establishing spatial restrictions on smoking
5. Incentive conflicts between government branches (e.g. tax revenues vs. health costs).

All obtained citations were then reviewed in light of our five focus areas. Although there were very few explicit political economy analyses, we retained all publications that were relevant to any of the five areas. Authors and institutions of particular significance were used as new search terms to expand our results. We provide a complete account of our search strategy in Annex II and a list of the 454 references collected in Annex III.

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5 Citation counts current as of May 2009.
PART V – LITERATURE REVIEW RESULTS

Based on the literature search strategy described above, we collected 454 papers and reports from the published and unpublished literatures on tobacco control in low- and middle-income countries. Below, we first provide below a brief description of the main characteristics of these papers, including the most common disciplinary perspectives of the authors and of the categories of institutions they represented. We then discuss the papers according to five themes related to the political economy of tobacco in LMICs.

- First, we present the results of our literature review, focusing on those papers that explicitly use political economy analysis or mention the term of “political economy” in the document.
- Second, we discuss papers that describe the health problems created by tobacco and on the prevalence of its use in low- and middle-income countries.
- Third, we discuss those papers that analyze TTC actions, typically by geographic region or country, or with reference to a certain population (e.g., women or children) or to a certain strategy (e.g., resisting ad bans, smuggling).
- Fourth, we review papers that provide practical guides to the political processes involved with tobacco control.
- Fifth, we review a few examples from the literature on the political economy of tobacco control in developed countries to illustrate some of the research approaches that could be used in LMICs.

CHARACTERISTICS OF THE COLLECTED LITERATURE

Although political economy is an analytic field most closely associated with political science, the vast majority of papers we identified in this search were written by authors with training in other areas. As could be gleaned from Internet research, departmental and institutional affiliations, and degrees listed, many authors were trained in health care provision, including physicians and nurses, and many were trained in epidemiology and other aspects of public health, one of which was health policy. Less frequently, papers were written by economists. Less numerous still were documents written by professionals outside the health disciplines, such as lawyers and political scientists. Most papers were written by authors with affiliations in academia or government, or at research centers, hospitals, or international agencies. Some of the remaining papers were written by authors at NGOs.

POLITICAL ECONOMY ANALYSES OF TOBACCO CONTROL

The political economy of tobacco control in low and middle-income countries was largely unaddressed in the literature captured by our search. We began by looking for papers that explicitly used political economy analysis. Of all 454 papers obtained, only 16 included the phrase “political economy” in the title or abstract. This is an undercount because some publication types were less likely to be abstracted, such as books, book
chapters, and some grey literature reports. Some documents may have had abstracts that were not included in the electronic record. This latter problem was partly addressed by including any available abstracts when we created electronic records ourselves. Abstracts were also added to downloaded electronic records when we knew that abstracts were available but not included automatically. These limitations do not change the general conclusion that very few papers use political economy analysis.

Of the 16 papers with the phrase “political economy” in the title or abstract, only six were directly concerned with tobacco control in low and middle-income countries (Stebbins 1987; Stebbins 1990; Global Analysis Project Team 2000; Chantornvong and McCargo 2001; Woelk, Mtisi et al. 2001; Lawrence and Collin 2004). Among the remaining ten papers, five were focused on control issues in developed countries (Poland 2000; Desapriya, Iwase et al. 2003; Pollack and Jacobson 2003; Stevenson and Shughart 2006; Hornsby and Hobbs 2007), three discussed tobacco production (Boesen and Mohele 1979; Green 1987; Geist, Chang et al. 2009), and two discussed firm behavior or political economy in general (Sullivan 1985; George 2006).

To confirm the finding that very few of the papers identified in the search explicitly applied political economy analysis to tobacco control in low- and middle-income countries, we employed a full text search for the term “political economy” in the 403 documents available in electronic format. The results are presented in Table 1, below. This subset of 403 represented about 90% of the 454 references we identified overall. The 10% of papers not covered by this methodology included items we reviewed in hard copy or from Google Books, and items not available in full text. Among the 403 electronic full text files, the search method had one major limitation, which was that some older publications were available only in a graphical format that did not allow text searching. There were about a dozen such instances, the most significant of which were Shepherd’s political economy of tobacco production and the overseas expansion of the industry and Tennant’s political economy of the US tobacco industry. Neither publication analyzes control or health issues (Tennant 1950; Shepherd 1985). This method also did not take language into account. Had we included Japanese and Spanish terms we would have identified three more publications. However, we limited the search to English because the number of non-English items was very low and none were about low- or middle-income countries.

Of the 403 documents available electronically, 48 contained the phrase “political economy” as could be detected by a full text search. These papers were then analyzed to determine the context in which “political economy” had been used. The results of that analysis are presented in Table 1. Of the 48, only eight papers used political economy analysis to understand aspects of tobacco control in low- and middle-income countries (LMIC). A large plurality (21 papers) did not use political economy at all. In these cases the phrase “political economy” appeared in a citation to The Journal of Political Economy, or to a paper with “political economy” in its title, and so forth.
Table 1: Analysis of 48 Papers Containing the Phrase “Political Economy” (in an Electronic Search of the Full Text Papers)

<table>
<thead>
<tr>
<th>Papers (#)</th>
<th>Context of “political economy” usage</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Political economy analysis of tobacco control or tobacco and health in (a) low- or middle-income setting(s)</td>
<td>(Stebbins 1987; Stebbins 1990; Stebbins 1991; Stebbins 1994; Global Analysis Project Team 2000; Chantornvong and McCargo 2001; Stebbins 2001; Woelk, Mtisi et al. 2001)</td>
</tr>
<tr>
<td>4</td>
<td>Political economy analysis of tobacco control or tobacco and health in a developed setting(s)</td>
<td>(Poland 2000; Cohen, de Guia et al. 2002; Pollack and Jacobson 2003; Hornsby and Hobbs 2007)</td>
</tr>
<tr>
<td>4</td>
<td>Political economy theory referenced to explain TTC behavior, e.g., self-regulating oligopoly, profit seeking firms, plus works we drew on for political economy theory in general</td>
<td>(Charney 1983; Reich 2002; Mamudu, Hammond et al. 2008a; Mamudu, Hammond et al. 2008b)</td>
</tr>
<tr>
<td>6</td>
<td>Political economy referenced as a concept, but political economy theory or methods not used</td>
<td>(Tye, Warner et al. 1987; Abedian, Merwe et al. 1998; Shimkhada and Peabody 2003; Vateesatokit 2003; Waitzkin, Jasso-Aguilar et al. 2005; Otanez, Muggli et al. 2006)</td>
</tr>
<tr>
<td>3</td>
<td>Cite absence of political economy analyses as an important obstacle to tobacco control in low- and middle-income countries</td>
<td>(Jha, Chaloupka et al. 2006a; Jha, Chaloupka et al. 2006b; Choudhury, Hanifi et al. 2007),</td>
</tr>
<tr>
<td>2</td>
<td>Political economy of tobacco production</td>
<td>(Boesen and Mohele 1979; Geist, Chang et al. 2009)</td>
</tr>
<tr>
<td>21</td>
<td>“Political economy” found but not used substantively, e.g., citation to the Journal of Political Economy, or “political” and “economic” are next to each other in a list, or “political economy” is mentioned in passing.</td>
<td>(Ray 1985; Jha 1999; Bettcher, Yach et al. 2000; Merriman, Yurekli et al. 2000; Orr 2000; Collin, Lee et al. 2002; Nelson 2003; Blanke and da Costa e Silva 2004; Fong, Hammond et al. 2004; Hozic 2004; Lee, Hwang et al. 2004; Mpalulungi and Muula 2004; Marshall 2005; Lokshin and Beegle 2006; Masanjala 2006; Blecher 2008; Capella, Taylor et al. 2008; Goel 2008; MacKenzie and Collin 2008a; Otanez and Glantz 2009; WHO 2009)</td>
</tr>
<tr>
<td>48</td>
<td>Total of 48 papers that included the phrase “political economy” in a full text search of 403 documents available in electronic form.</td>
<td></td>
</tr>
</tbody>
</table>
The eight recent LMIC political economy analyses identified by these searches and shown in the top row of Table 1 come from two sources. Several political economy analyses were conducted through projects at the London School of Hygiene and Tropical Medicine (“LSHTM Group”) funded by the (US) National Cancer Institute and by WHO. Some of the core researchers on this project were political scientists, including Sombat Chantornvong, Jeff Collin, and Kelly Lee. These scholars and colleagues examined the political economy of tobacco control in Thailand and Zimbabwe (Global Analysis Project Team 2000; Chantornvong and McCargo 2001; Woelk, Mtisi et al. 2001; MacKenzie, Collin et al. 2004b; Chantornvong, Collin et al. 2007; MacKenzie and Collin 2008a; MacKenzie and Collin 2008b). These authors also published a political analysis of the FCTC (Collin, Lee et al. 2002). Predating these analyses are several by anthropologist Kenyon Stebbins, who applied political economy analyses to tobacco and health in Guatemala, Mexico, South America, and at the global level (Stebbins 1987; Stebbins 1990; Stebbins 1991; Stebbins 1994; Stebbins 2001).

The LSHTM Group chose to apply a political economy analysis for its strengths in clarifying which actors will be involved in a given issue, gauging what position each will adopt, and estimating the relative influence each can exercise. They valued this approach for its ability to explain policymaking as the result of active, competing interests as expressed by various actors of different positions and influence. The techniques of political mapping and stakeholder analysis were used to characterize the relationships among actors interested in tobacco policy and to identify the actors, their position, and power, respectively (Global Analysis Project Team 2000).

In Thailand, these investigators identified the primary players in tobacco control as the domestic tobacco monopoly, TTCs, the government, and the anti-tobacco movement. The current positions of players in each broad category were analyzed to assess current TTC strategies and opportunities for control. Thailand’s tobacco control movement has been widely cited as a success story since the early 1990s when it won a trade dispute over the right to heavily regulate tobacco imports (Vateesatokit 1997; Vateesatokit 2003; Sussman, Pokhrel et al. 2007). By 2000, TTCs had found ways to gain market share by working within or around the regulations. For instance, TTCs had located most production in Malaysia, qualifying their products for lower tariffs under a regional Asian trade agreement. TTCs had flouted some aspects of Thailand’s comprehensive ad bans, particularly in point of sale advertisements and tobacco-branded merchandise. TTCs were also pursuing a strategy of recruiting powerful families and senior officials in an attempt to create a more local, nationalistic image. Coalitions from the past, as between the Thai Tobacco Monopoly and health advocates, had weakened significantly and the national government appeared to have no coherent tobacco control strategy. In the authors’

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6 WHO funded the project “Global analysis of the political economy of tobacco control in lower and middle income countries, phase II: case studies in Thailand and Zimbabwe.” NIH supported “Globalisation, the Tobacco Industry and Policy Influence,” see [http://www.lshtm.ac.uk/cgch/tobacco/current_research.htm](http://www.lshtm.ac.uk/cgch/tobacco/current_research.htm)
Recently a project on the political economy of tobacco control in SE Asia has been established at Duke University with a grant from the Fogarty Center at NIH.
assessment, these developments created ambiguity about the future prospects for tobacco control in Thailand. However, the analysis highlighted the importance of maintaining the ad ban and strengthening the control movement through the creation of a public fund to discourage alcohol and tobacco use, which had been proposed by the legislature (Chantornvong and McCargo 2001).

In Zimbabwe, the historical political economy was investigated to document the country’s longstanding heritage in tobacco production, the national importance of the industry, and the close linkages between the industry and the global political economy of this crop. The balance of analyzed factors was overwhelmingly favorable to continued dominance by the tobacco industry; the prospects for control were judged to be very slim. The case of Zimbabwe illustrates how a national issue can be so inextricably tied to a global industry that solely domestic control efforts are extremely unlikely to be effective (Woelk, Mtisi et al. 2001).

The Thailand and Zimbabwe studies were supported to investigate the limitations of national-level tobacco control against a transnational industry (Yach, personal communication 2009). The importance of situating control efforts within an international framework was invoked as one of the justifications for the FCTC (Chaloupka and Nair 2000). These two papers and many political economy assessments that were not published were used to substantiate the need for the FCTC and to guide the negotiation process (Yach, personal communication 2009). These studies are examples of the research needed in other countries, where the political economy of tobacco control may vary, for instance according to the level of production or importation, the importance of the tobacco industry economically, and the patterns of use in the population.

Prior to the LSHTM team’s studies, anthropologist Kenyon Stebbins applied a political economy framework to tobacco and health in Central and South America. In a series of prescient papers he characterized the international expansion of TTCs as motivated by “greed”—the capitalist need for continual growth—and warned of the coming smoking epidemic in the region. Stebbins also used the word “greed” to describe the motives of developing country governments and those in the media who profited from tobacco advertising (Stebbins 1990: 230). TTCs further benefited from the complicity of the US and UK governments. Against these forces promoting tobacco use, Stebbins noted that control advocacy groups were virtually non-existent and that ignorance of tobacco’s health risks was common. Under these conditions, defeating tobacco in developing countries would require coordinated efforts among the ministries of finance, agriculture, industry, education, and health, he argued (Stebbins 1990).

In Stebbins’ analysis, the alliance of the transnational tobacco industry and developed countries was epitomized by the US government’s use of Section 301 trade sanctions to force tobacco imports on low- and middle-income countries. In his view, the contradiction between promoting control domestically and assisting expansion into developing countries was similar to the British role in the Opium War of 1840 (Stebbins 1991). The powerful array of governmental, economic, and advertising forces promoting
tobacco use helped to create a substantial rise in youth and female smoking in developing countries (Stebbins 1994).

Based on ethnographic fieldwork in Ecuador, Peru, Chile, and Argentina, Stebbins observed that tobacco’s unique features placed it outside the usual range of public health problems—namely that tobacco consumption generates profits for TTCs and tax revenues for governments, and is promoted by advertising. Accordingly, traditional approaches to public health problems were unlikely to succeed with tobacco. Citing the complex promotional forces behind the epidemic, Stebbins argued that policymakers need to engage non-health disciplines (such as anthropology) to find out why people smoke and design political strategies to reduce tobacco consumption (Stebbins 2001).

This search for literature on the political economy of tobacco control in low and middle-income countries (LMICs) highlights how infrequently this kind of analysis has been employed. We found the phrase “political economy” in 48 of the 403 electronically available documents, but often the concept was engaged superficially or not at all. This review suggests that political economy frameworks have yet to be widely used in the literature on tobacco control and that few of the existing analyses are sufficiently thorough to inform the design of political strategies at the national or local levels.

Tobacco’s Impact on Health, Consumption, and the Environment

Many of the documents identified in this search were descriptive reports on different aspects of tobacco use, such as prevalence patterns, risk factors, and non-health consequences. We briefly present the results of these documents, because understanding the details of tobacco use and its related health consequences in a particular setting can provide policymakers and control advocates with ideas about how and where to intervene. These factors also affect the political economy of tobacco control.

In general, national-level statistics in broad categories are available as part of the MPOWER Package (WHO 2008a) and from the CDC’s Global Tobacco Surveillance System (CDC 2009b). Investigators can help link these national level-level statistics to specific local impacts—in villages, towns, and cities, for instance—and can help mobilize political support by demonstrating health risks in sub-national populations. Such studies already exist in many settings. For instance, the risks of second hand smoke exposure among primary schoolchildren in Turkey helped provide the impetus and evidence for more strict tobacco control legislation (Emri, Bagci et al. 1997; Ekerbicer, Celik et al. 2007) and analyses of the Global Youth Tobacco Survey (from CDC) have been useful tool for monitoring the effectiveness of implemented policies (Erguder, Çakır et al. 2008).

In Vietnam investigators have discussed predictive factors of tobacco use (Jenkins, Dai et al. 1997) and the susceptibility of youth to smoking (Guindon, Georgiades et al. 2008). Other studies show how chronic disease relates to demographic and lifestyle factors such as smoking (Minh, Huong et al. 2008), and how exposure to environmental tobacco
smoke (ETS) increases the risk of hospitalized pneumonia among children under age five (Suzuki, Thiem et al. 2009). Taken together, these studies supply evidence about patterns of harm from tobacco, patterns of citizens who are likely to smoke, and characteristics associated with youth who smoke, all of which can help justify and focus tobacco control strategies.

Prevalence studies of risks or use for specific populations have been completed in many countries. These are useful for raising awareness of tobacco use and building support for control programs. Some examples include pregnant mothers’ exposure to second hand smoke (SHS) in Argentina and eight other countries (Bloch, Althabe et al. 2008), use patterns by Brazilian students (Galduróz, Fonseca et al. 2007), risk and use patterns in youth and adolescents in India (Jindal, Aggarwal et al. 2005; Reddy, Perry et al. 2006; Singh and Gupta 2006; Stigler, Perry et al. 2006; Rudatsikira, Siziya et al. 2007; Mathur, Stigler et al. 2008), and smoking prevalence patterns in adolescent girls, medical students, and physicians in Pakistan (Piryani and Rizvi 2004; Khan, Husain et al. 2005; Ganatra, Kalia et al. 2007; Nawaz, Imam et al. 2007). Those who handle tobacco extensively, including farmers and processors, are at high risk of green tobacco sickness, a form of nicotine poisoning that is usually self-limiting, although it can be dangerous in children (Reddy and Gupta 2004; McKnight and Spiller 2005). Studies on the discomfort and prevalence of green tobacco sickness can help promote tobacco control policies in agricultural communities.

Where resources are scarce, as occurs in low- and middle-income countries, spending on tobacco exacts a high opportunity cost by crowding out other commodities. Studies in India showed that households that consumed tobacco had lower consumption of milk, education, clean fuel, and entertainment, and had lower per capita nutritional intake versus tobacco-free households (John 2008). In a sample of about 7,000 low-income workers in Eastern China, Hesketh and colleagues found smokers spent an average 11% of personal monthly income on tobacco. Versus non-smokers, smokers reported foregone savings and foregone consumption of health care and major household goods (Hesketh, Lu et al. 2007). Overall, tobacco use is strongly associated with poverty and malnutrition (de Beyer, Lovelace et al. 2001). In developed countries, smokers’ quality of life has been found to be broadly lower than that of non-smokers (Slama 2006).

Tobacco has also been associated with negative consequences beyond its direct health effects. Understanding this broader range of consequences can help control advocates broaden their arguments and enlarge their coalitions. For example, the environmental costs of tobacco production are highly significant. In the 66 developing countries for which data were available, tobacco production was found to have caused 4.6% of total deforestation—an area of nearly 200,000 hectares (Geist 1999). In countries with extensive cultivation, tobacco growing often causes between 20%–40% or more of annual deforestation, as in Korea (45%), Uruguay (41%), and Bangladesh (31%) (Geist 1999; Campaign for Tobacco-Free Kids 2001b). Deforestation is caused primarily because of wood harvested for drying tobacco. Although some major producers, such as China, have transitioned to other fuel sources, other countries with weak enforcement, such as Brazil and Tanzania, are likely to face increased environmental damage into the
foreseeable future. As tobacco production is increasing in developing countries, commensurate increases in environmental damage can be expected (Geist, Chang et al. 2009). Since at least the 1970s, TTCs have sought to contest the environmental consequences of tobacco production—including deforestation, pesticide use, and food insecurity—with lobbying and media campaigns that promoted positive images of tobacco farmers and tobacco farming (Otanez and Glantz 2009).

Negative environmental consequences also stem from tobacco processing and consumption. Tobacco firms produced in 1995 an estimated 2262 million kilograms of manufacturing waste and 209 million kilograms of chemical waste. Nicotine waste from producing light cigarettes totaled about 300 million kilograms in the same year. Cigarettes also produce waste butts once smoked, which are frequently disposed of improperly. The International Coastal Cleanup Project reported that cigarette butts were the most numerous trash item collected along beaches (1990–7) and in 1997 accounted for 19.1% of all coastal trash items, by number of items collected at 5,000 cleanup sites in 90 countries (Novotny and Zhao 1999).

The combined health and non-health costs of tobacco are extremely high on a global level. After accounting for lost productivity, premature death, ineffective tax collection, and misused resources, the 2009 Tobacco Atlas estimates that the worldwide annual cost of tobacco is approximately $500 billion (Shafey, Eriksen et al. 2009).

**ANALYZING THE ACTIONS OF TTCs**

The second most common set of documents identified by our search were those analyzing the actions of TTCs. The majority of these papers analyzed TTC behavior with reference to a geographic area (usually a country or region), with reference to a target group (usually women or youth), or with reference to a specific strategy such as smuggling, lobbying, or obfuscating scientific and regulatory discussions with counter-claims and sponsored research.

Gaining insight into TTC actions is essential for policymakers and advocates of tobacco control at all levels to understand the industry’s strategies to increase smoking prevalence throughout the developing world. As TTCs have shifted their focus to low- and middle-income countries, they have sought typically to increase their market by targeting groups with low smoking rates. How TTCs have recruited women to smoke has been discussed globally (Mackay 1996; Richmond 1997b; Kaufman and Nichter 2001; Mackay and Amos 2003), regionally in Central and South America (Bialous and Shatenstein 2002), and at the national and local levels, for instance in Korea (Lee, Carpenter et al. 2009), Malaysia and the Philippines (Morrow and Barraclough 2003a; Alechnowicz and Chapman 2004), Singapore and Vietnam (Morrow and Barraclough 2003b), and Mumbai, India (Bansal, John et al. 2005).

These analyses show that typically women are targeted with advertising and promotional activities stressing feminist themes of independence and modernity, and that products are
adapted to their preferences in design, taste, and nicotine delivery. Knowledge of these industry strategies lays the foundation for limiting or banning tobacco ads and for designing and targeting anti-tobacco messages. At the international level, knowledge of these practices was used to design sections of the FCTC. Policymakers in countries that have signed the Framework Convention therefore have some grounds to curtail TTC advertising and promotion through litigation (DeLand, Lewis et al. 2000).

Studies show that TTCs market their products to children, despite industry denials, and global youth smoking rates are rising (Warren, Riley et al. 2000; Warren, Jones et al. 2006; Warren, Jones et al. 2008). TTC methods have been examined in many places, such as Argentina (Bialous and Shatenstein 2002; Braun, Mejia et al. 2008), Mumbai, India (Bansal, John et al. 2005), Myanmar (Chapman 2004), and Taiwan (Wen, Chen et al. 2005). Concerns that TTCs target youth have led policymakers to demand anti-smoking programs for youth. But TTCs have frequently used youth anti-smoking programs as “stealth marketing” campaigns to increase the appeal of their products in younger age groups (Landman, Ling et al. 2002; Assunta and Chapman 2004a; Sebrié and Glantz 2007b).

To achieve their goals—including increasing tobacco consumption by women and children—TTCs have resisted national policies (Saloojee and Dagli 2000). Working with governments to weaken regulations has been a standard TTC tactic in developed countries (McDaniel and Malone 2005; McDaniel, Solomon et al. 2005), and is now common in developing settings. In Kenya, BAT ghost-wrote legislation restricting tobacco advertisements to reduce the impact on their business (Patel, Collin et al. 2007). In Argentina, TTCs have obstructed legislation for decades (Sebrie, Barnoya et al. 2005), including recent intensive lobbying efforts to delay consideration of the FCTC. Strategies included asking for more time for further research and convincing agricultural and fiscal authorities that tobacco control would be harmful economically. TTCs were likely responsible for orchestrating threats against legislators who supported adoption of the FCTC, as well (Mejia, Schoj et al. 2008). In China BAT pursued several strategies to diminish tobacco’s importance on the national health agenda, including “blatantly misinform[ing]” health officials that hepatitis was “the number one killer disease” in the country even though cigarettes cause at least seven or eight times more mortality at a minimum, and funding research on liver disease to distract attention from conditions for which smoking is a risk factor, such as lung cancer and cardiovascular disease (Muggli, Lee et al. 2008: 1733).

Recent scholarship has also exposed TTCs’ attempts to exert influence at the international level. TTCs correctly perceived the World Bank’s *Curbing the Epidemic* (Jha 1999) as a threat to its longstanding argument that tobacco control had negative economic effects. To generate contrary messages and potentially reduce the report’s credibility, TTCs hired academics, consultants, and public relations firms, and worked through “front” organizations such as the International Tobacco Growers’ Association (Must 2001) and allegedly independent consultants whose secret industry payments have been found in the LTDL (Mamudu, Hammond et al. 2008a). TTCs also tried to propose an alternative to the FCTC through Project Cerberus, which called for voluntary codes
and, initially, an independent auditing body that was subsequently dropped from the plan (Mamudu, Hammond et al. 2008b). When internal industry documents were made available through the Master Settlement Agreement, it was revealed that TTCs had infiltrated WHO and other UN agencies, and had been influencing the international politics and science of tobacco at the highest levels for many years. A review of these activities commissioned by WHO stretched to more than 250 pages (WHO 2000). More recently, WHO reviewed tobacco industry interference with tobacco control generally (WHO 2009).

An important ingredient in TTCs’ strategies to influence international and national politics has been the use of findings made or communicated by researchers or organizations that were presented as independent but which actually received industry funding as revealed in LTDL documents. Among recent issues in which TTCs have been the most active is environmental tobacco smoke (ETS). Eliminating smoking in public spaces is contested by TTCs because such policies reduce the opportunities for smokers to consume tobacco and negatively affect social norms around smoking (Muggli, Forster et al. 2001; Muggli, Hurt et al. 2003). Philip Morris has been especially active in this area and has pursued large programs in Europe and Asia (Assunta, Fields et al. 2004; Tong and Glantz 2004; Barnoya and Glantz 2006), and Central and South America (Bialous and Shatenstein 2002).

To gain access to new markets TTCs have relied principally on two strategies; lobbying for trade sanctions—usually via the US Trade Office (USTO), the General Agreement on Tariffs and Trade (GATT) or the World Trade Organization (WTO)—and allowing the growth of smuggling. Trade disputes have been brought against countries that restrict the importation and sale of tobacco products (usually because those countries have a national monopoly) and have been used to force countries to reduce or eliminate the import restrictions. Smuggling is helpful to TTCs because it creates demand for prohibited products and undermines tax revenues. Avoiding taxes serves several TTC purposes, such as reducing prices, which helps create demand among the youth and other price-sensitive market segments, and as a way to undercut government regulatory initiatives, which are often financed via tobacco taxes. How TTCs entered and dominated new markets using these two methods has been detailed for many countries, including Cambodia (MacKenzie, Collin et al. 2004a), China (Lee, Gilmore et al. 2004; Lee and Collin 2006; Zhong and Yano 2007), Indonesia (Lawrence and Collin 2004), Kenya (Patel, Collin et al. 2007), Korea (Lee, Carpenter et al. 2009), Uzbekistan (Gilmore, McKee et al. 2007), Vietnam (Lee, Kinh et al. 2008), and regionally in Latin America (Shepherd 1985; Bialous and Shatenstein 2002), Asia (Collin, LeGresley et al. 2004) and Africa (LeGresley, Lee et al. 2008), and globally (Campaign for Tobacco-Free Kids 2001a).

Taxation is an important tool for limiting tobacco consumption and generating government revenue. The World Bank’s Curbing the Epidemic estimates that a 10% increase in tobacco taxes leads to an 8% decline in consumption. The reduction in consumption is stronger in poorer countries and among poorer customers, making taxation an especially important weapon against youth smokers, who tend to be very
price sensitive (Jha 1999). TTCs have sought to avoid taxes through several strategies in addition to smuggling. They have argued for reduced or eliminated tariffs through GATT and the WTO (Chaloupka and Corbett 1998; Bettcher, Yach et al. 2000; Vateesatokit 2003; Shaffer, Brenner et al. 2005; Zeigler 2006). TTCs have also relocated manufacturing operations in or near target markets to avoid import duties and benefit from regional trade agreements (Chantornvong and McCargo 2001). The industry has also promoted tobacco products such as beedis and oral forms that avoid cigarette taxes and can be offered at lower prices for low-income customers. This lacuna in tax policy fosters increased consumption among those who can least afford tobacco—the poorest and youngest—and also undercuts government revenues (Reddy and Gupta 2004).

**STRATEGY GUIDES FOR TOBACCO CONTROL**

Some of the documents identified in our search provided strategy guides and case studies designed to assist policymakers and tobacco control advocates, and some documents focused on the situation in low- and middle-income countries. The most comprehensive series we found is produced for use in developed and developing countries by the American Cancer Society and the International Union Against Cancer. The “Tobacco Control Strategy Planning” series of four guides covers strategies for advocacy, movement building, legislation, and enforcement. Two companion documents offer strategies for raising public awareness of the dangers of ETS and for engaging doctors in tobacco control activities (American Cancer Society/IUAC Undated).

In some of these areas, additional documentation is available. Legislative strategy guides have been released by WHO (Blanke and da Costa e Silva 2004) and the Pan American Health Organization (PAHO) (Selin and Bolis 2002). A report of insights and best practices for enforcement has been published by the Government of India (John 2008). An important underlying issue in each area is capacity building, which has been addressed by a WHO report (WHO 2004).

For NGOs working in LMICs, Efroymson and colleagues have documented useful lessons supported by pragmatic anecdotes gleaned from their experiences collaborating with control activists in Bangladesh, India, Nepal, Niger, Nigeria, and Vietnam (Efroymson 2007). A more extensive account of these experiences in Bangladesh is also available (Efroymson and Ahmed 2003). A previous publication provides hands-on tools such as draft letters to the editor, sample messages for promotional materials, and sample petitions, along with guidance for integrating anti-tobacco activities into existing programs and documentation of tobacco’s harm (Efroymson, Must et al. 2001).

Connolly and collaborators have developed a guide to adapting tobacco control research methods to low- and middle-income countries to build research capacity and document the need for adoption and enforcement of FCTC policies. Included are guides to discovering and reporting TTC activities, indoor air quality monitoring, assessing the effectiveness of pictorial versus verbal cigarette pack warnings, and assessing youth-targeted advertising (Connolly, Carter et al. 2006). Connolly, former director of the
Massachusetts Tobacco Control Program, stressed to us the need for localizing anti-tobacco efforts. At the national and international levels, he noted, TTCs are tremendously powerful and frequently are able to subvert regulatory action. But in the US experience, an effective strategy eventually emerged when control advocates were able to counter TTC influence at the national level where TTC power was not as well established and could be diluted through numerous points of attack around the country (Connolly, personal communication 2009).

**LITERATURE ON DEVELOPED COUNTRIES**

Although this study did not directly explore the literature on tobacco control in developed countries, we did identify some papers that illustrate the kind of the analysis needed to understand the politics of implementing control strategies in low- and middle-income countries. These include the assessment of tobacco control as a fundamentally political problem in Spain (Villalbí and López 2001) and a political map of control opponents in the same country (Granero, Villalbí et al. 2004).

In North America we found detailed analyses of legislators’ behaviors, such as their voting patterns, predictors of their support for tobacco control, and comparisons of their intentions and their actual votes (Flynn, Dana et al. 1997; Flynn, Goldstein et al. 1998; Cohen, de Guia et al. 2002; Hahn and Rayens 2002). Successful political strategies for implementing control measures were available for some US states and localities (Jacobson and Wasserman 1999), as was a political analysis of how Arkansas became the only state to dedicate all of its winnings from the Master Settlement Agreement (MSA) to tobacco control (Thompson, Ryan et al. 2004). Also, the MSA itself has been analyzed politically (Stevenson and Shughart 2006). In the US, the political economy of youth smoking regulation has been analyzed (Pollack and Jacobson 2003). In Canada, researchers have explicated the politics of norm change around the meaning of “considerate behavior” by smokers and the acceptability of smoking in public spaces (Poland 2000), as well as the ideological categories employed by the tobacco industry (Cohen, Milio et al. 2000), and the politics of a 1994 tax reduction in Quebec (Breton, Richard et al. 2006).

**LITERATURE REVIEW CONCLUSION**

Our review of the literature on tobacco control in low- and middle-income countries suggests four broad conclusions. First, we identified only a few documents that explicitly conducted a political economy analysis and that directly proposed political strategies for advancing tobacco control. Instead, most of the papers were descriptive: of who smokes, of patterns and trends of use, of health risks, of TTC actions, or of the economic aspects of tobacco and control. Some papers contained policy recommendations or policy analyses, but very few focused on the political dimensions of policy adoption, implementation, or enforcement. In short, the available literature on the political economy of tobacco control in LMICs is very limited.
Second, even when the term “political economy” was used in a paper, only rarely did the authors employ it as a formal analytic methodology. Recent papers on political economy were all commissioned as a part of the justification and negotiation of the FCTC. More commonly, the term has been used loosely, as an opportunity to state that politics is an important component of the tobacco control discussion, along with economics and health.

Third, translating the FCTC into tobacco use reductions at the national level is likely to require national-level political economy analyses to assist control efforts in specific settings. This approach could link the international consensus to national manifestations of the tobacco problem and at the same time provide analytic tools to help define political strategies appropriate to the particular national settings. This work has yet to be done for low- and middle-income countries.

Fourth, tobacco control’s present and past are well documented, but analyses of future scenarios have focused on projections of health consequences and smoking trends. Many publications have defined optimal tobacco control policies, detailed the state of national tobacco control policies around the world, and examined the strategies TTCs have used to promote their products. A primary feature of this latter literature is that TTCs have succeeded at prospering under strengthened regulatory frameworks and against a continually growing body of evidence about the harm done by their products. How TTCs have operated in the past is fairly well documented thanks to the MSA. But how TTCs will try to grow in the future has not been adequately addressed in the literature we identified.

One emerging threat is TTCs’ increasing promotion of various forms of smokeless tobacco, including snus (commonly consumed in Sweden and Norway). These products avoid restrictions based on ETS, which have been one of the strongest strategies in tobacco control policy for changing the social acceptability of tobacco use. How these products may change the scientific, medical, and political calculus of tobacco is unknown. Given what is known about TTCs and how they respond to regulatory pressure, these questions are crucial. Even in countries where oral tobacco use is relatively common, tobacco control activities are oriented primarily around smoking. This bias reflects the limited evidence and experience on controlling smokeless tobacco and points to an urgent need for preparation and research (Reddy and Gupta 2004; John 2008).

Given that many obstacles to tobacco control are political—rather than scientific or medical—the lack of scholarship using a political economy perspective reflects an important gap in the literature. Strategies and advice from NGOs, international agencies, and governments have partially addressed this issue. But many opportunities for political economy analysis remain, and this research could assist in producing more effective adoption, implementation, and enforcement of tobacco control policies.
PART VI – CONSTRUCTING A POLITICAL ECONOMY OF TOBACCO CONTROL

Debates over tobacco control policies are characterized by a high mobilization of political and economic influence to shape the outcomes. During the design and negotiation of the FCTC, political economy analyses were an important element in the political strategy that ultimately succeeded in establishing WHO’s first treaty (Yach, personal communication 2009). However, despite the advantages of this analytic approach, we found few instances of its application to tobacco control in the sample of documents we reviewed in this study.

To demonstrate the potential of this approach and to guide policymakers in the development of further analyses, we begin constructing a political economy of tobacco control in low- and middle-income countries through a stakeholder analysis based on the literature review. We first present the stakeholder analysis method and then apply it to the five substantive issues that guided our literature search strategy:

1. Information problems concerning citizen knowledge of the dangers of tobacco use
2. The roles of producers, multinational corporations, and trade disputes in consumption
3. Smuggling
4. The barriers to raising taxes and establishing spatial restrictions on smoking
5. Incentive conflicts between government branches (e.g. ministry of finance vs. ministry of health)

In each area, the stakeholder analysis identifies the players, their positions, and their relative influence. This approach provides a means to assess the balance of power in each area and can indicate promising opportunities for intervention and suggest major allies and proponents on each issue.

STAKEHOLDER ANALYSIS

The information obtained in the literature review was examined using a stakeholder analysis in each of the five areas of this investigation. Stakeholder analysis begins with the identification of individuals, groups, and organizations that are involved with or affected by tobacco and have the potential to influence associated processes or outcomes, e.g., by direct or indirect participation in tobacco production and trade; policymaking in agriculture, health, trade, and taxation; legal and regulatory enforcement, and so forth, all at various levels from the national to the international or transnational, as appropriate. This analysis was modeled on the political mapping feature of PolicyMaker, a Windows-based computer program that assists in the identification of Players, Power, and Positions (Reich and Cooper 1995-2004; Reich 2002). The stakeholder analysis attempts to identify the entities on both sides of the policy debate and summarize the position and power of each player.
Stakeholder analysis requires subjective judgments to identify the relevant actors and assess their position and power with respect to each of the five dimensions we investigate. Although corporate strategies are normally confidential, much is known about how TTCs have operated. As a result of the Master Settlement Agreement between major TTCs and the US federal and state governments, millions of pages of formerly secret internal tobacco industry documents have become available on the Internet via the Legacy Tobacco Documents Library. This resource, as well as publications that draw on its primary documents, was analyzed to inform the assignment of position and power for each player. PolicyMaker’s seven point position scale was used: High Support, Medium Support, Low Support, Non-mobilized, Low Opposition, Medium Opposition, and High Opposition. PolicyMaker’s three-point power scale was used, as well: Low, Medium, and High. Power was judged based on our assessment of a player’s access to economic resources, regulatory authority, enforcement power, and political savvy.

Because TTCs did not expect that their confidential documents would be made public, those sources can be interpreted as providing good insight into corporate strategy and thinking. Because they were made available recently, it is likely that they provide a reasonably current picture of TTC strategies. Because strategies change with time, however, the caveat must be offered that the analysis here will not remain accurate, and the extent to which it is accurate now is unknown.

**INFORMATION PROBLEMS AND THE RISKS OF SMOKING**

Ignorance of the health consequences of smoking is common among both individual consumers and government policymakers (Jha, Chaloupka et al. 2006b). But if the true costs of tobacco use were universally known and accepted, it is unlikely that cigarettes would remain legal and unlikely that many people would choose to smoke. In this sense, information failures lie at the core of the tobacco epidemic and are an important component in the continuing growth of tobacco use in low- and middle-income countries.

Although some information failures occur passively, we find that most information failures in tobacco control are created actively by TTCs, which target vulnerable groups with misleading or false information designed to misrepresent smoking as a positive activity and disguise its health risks to smokers and people around them. To assess these information failures we reviewed smoking dynamics in important groups such as physicians, youth, and women, and examined advertising and regulation as two primary channels of information on smoking. We then analyzed the actors who favor and oppose the dissemination of information about the risks of tobacco use. The results of this exercise are shown in Table 2 at the end of this section.
a. Information failures: physician smoking

Physicians and health care providers are highly influential sources of information about the risks of tobacco use and the benefits of cessation. WHO’s MPOWER report recognizes the importance of cessation advice during primary care visits as one of the three major components of comprehensive support for quitting (WHO 2008a). However, in many countries, medical professionals are insufficiently knowledgeable of the dangers of smoking and of appropriate cessation strategies. Moreover, caregivers often smoke at high rates in many low- and middle-income countries. For instance, among male physicians, smoking prevalence is 28% in Bangladesh, 40% in Chile, 61% in China, 43% in Korea, 41% in the Russian Federation, and 30% in Syria (Mackay and Eriksen 2002). Although physician smoking in rich countries has declined in recent decades, no similar decline has been found in studies of physician smoking in low- and middle-income countries (Smith and Leggat 2007b).

A key barrier to supporting smoking cessation is health care staff who are ill-equipped to serve as role models and untrained to advise smokers how to quit. Targeting health professionals who smoke with cessation advice and training all primary caregivers on cessation techniques can address an important obstacle to communicating the risks of smoking and to delivering support for cessation to the population at large.

China—home to 350 million smokers—has recently embraced this strategy in its tobacco control efforts. In 2009, the government enlisted the support of important medical schools and medical associations in a campaign to end smoking by physicians and other medical workers (Bland 2009). Currently, more than half of Chinese physicians smoke, but there appears to be substantial variation by gender, specialty, location, and age according to local and regional studies. Overall, women physicians’ smoking prevalence is about one-fifth that of male physicians (Mackay and Eriksen 2002). In one rural hospital in Hebei province smoking prevalence varied from zero in the obstetrics and gynecology department to about 33% among surgeons. Rates were also lowest among physicians under age 25 (6.3%) and highest among physicians aged 50–54 years (31.6%). Only 1% of respondents were ex-smokers (Smith, Wei et al. 2006). A six-city survey of 823 surgeons in China found that about 45% were current smokers, almost all of whom had smoked in front of patients (Yao, Ong et al. 2009). By contrast, a survey of 757 Hong Kong physicians detected only 6% smoking prevalence. But 50% of these physicians had no training in cessation, over half had inadequate knowledge or an unfavorable opinion of cessation, and only 29% advised all smoking patients to quit (Abdullah, Rahman et al. 2006).

In any national setting the magnitude and details of physician smoking are likely to vary. In Pakistan, for example, a survey of physicians in one Karachi facility (n=200) found that 32% smoked, of whom 95% smoked during duty hours. Half of all physicians had started smoking in their twenties. Younger doctors were more likely to smoke than the average Pakistani (Piryani and Rizvi 2004). A separate study of Karachi medical students found that 14.4% were current smokers, reinforcing the suggestion that smoking increases after medical school. Nonetheless, 96% of these smokers believed that all physicians should have training in cessation techniques and 95% of all medical students believed that physicians should be role models by not smoking (Khan, Husain et al. 2005). Nawaz and
colleagues found that the rate of smoking among medical students was about 11%, and the majority supported spatial restrictions on smoking (Nawaz, Imam et al. 2007). These findings suggest significant engagement with the tobacco problem among medical students. But among a roughly nationally representative sample of 239 dentists, the majority did not view cessation as a central activity in their profession. In this sample, 20.3% of dentists were current smokers (Mumtaz, Khan et al. 2008).

Reliable and comparable data on medical student smoking are not widely available beyond OECD countries, but the existing evidence suggests great variation among countries. In a recent synthesis Smith and Leggat found rates ranging from 3% in Brazil to 33% in Turkey. Based on cross-sectional studies the authors concluded that smoking rates appear to rise during medical school, and that students tend to smoke at rates similar to those observed nationally in their countries. Social norms thus seem to play a large role in explaining medical student smoking (Smith and Leggat 2007a). A 1992 review of 15 medical schools in nine Asian countries by Tessier et al. also concluded that smoking increases during medical school even though students increased their awareness of tobacco’s dangers at the same time. In this study, less than one-third of senior students felt adequately equipped to counsel patients to quit (Tessier, Fréour et al. 1992).

Medical schools in LMICs have reported several barriers to offering comprehensive tobacco education, including a lack of student and staff interest, a lack of faculty knowledge, the importance of tobacco as a cash crop, the power of tobacco companies, and the perception that other issues are more important (Richmond, Debono et al. 1998). None of these issues is necessarily straightforward to address because they tend to involve systemic factors such as teaching capacity, smoking norms, and the economics of tobacco.

b. Information failures: targeting the youth
Among the most contested demographics is the youth. The youth are important for TTCs because those who begin using tobacco at a young age are less likely to quit, are influential trendsetters, and have high lifetime consumption because of their early start. They also represent a disproportionately large share of the contestable market—existing and potential tobacco users whose brand choices can be influenced by advertising and other strategies, including primarily non-smokers who might be convinced to start or existing smokers who might switch brands. As TTCs have moved from developed markets to developing countries, they have systematically targeted the youth (Connolly 1992; Richmond 1997b). According to recent estimates, more than 80% of youth who smoke live in low- and middle-income countries (Jha 1999; Prokhorov, Winickoff et al. 2006). For control advocates, the youth are the key to avoiding tobacco-related deaths in the future and, as those with the most life remaining, have the most to lose.

The definition of “youth” has varied considerably among investigators, which in part reflects the difficulty of defining the ages at which children begin forming opinions about tobacco and the ages at which they may start to experiment with tobacco. In many

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countries, 18 years of age is considered to be the adulthood/childhood boundary, but exposure to tobacco smoke, to tobacco products, and to tobacco industry influence begins at much younger ages. At times TTCs have designated anyone aged over 15 years as “adult” (Braun, Mejia et al. 2008). The Global Youth Tobacco Survey has found that among children aged 13–15, 50% reported exposure to SHS in the week before the survey, 20% owned a product with a tobacco company logo, and 10% had been offered free cigarettes by a tobacco company representative (Warren, Jones et al. 2008).

Many investigators have found that children are vulnerable to tobacco at still younger ages. For instance, over 30% of children reported having their first cigarette before age 10 in Ghana, Guyana, India, Jamaica, and Poland (Mackay and Eriksen 2002). BAT’s advertising strategy in Burma in the mid-1990s appears to have been aimed at ages 12 and up (Chapman 2004). In 1996, almost 20% of Ankara, Turkey school children ages seven and eight had tried a cigarette (Emri, Bagci et al. 1997). In more recent investigations 60% of Turkish primary school students in grades 3–5 (approximately ages 9–11) were found to be exposed to second hand smoke in the home, and about 90% of youth nationally were exposed to SHS (Ekerbicer, Celik et al. 2007). By ages 13–15, 9% of Turkish boys and 4% of Turkish girls had become regular smokers (Erguder, Çakır et al. 2008). In Thailand and Malaysia, about 3% of youth aged 13–17 were regular smokers and 10%–12% reported experimental smoking. In both countries, males were far more likely to smoke than females (by a factor of 7–15) (Hammond, Kin et al. 2008).

There is some evidence that smoking rates are rising among youth in developing countries. In a sample from rural Zambia, about 20% of 15 year old males reported a history of smoking while among males aged 12 or younger about 37% reported a history of smoking. Similar results were found for females. Those aged 13 were less likely to report a history of smoking than those aged less than 12 (20% versus 38%, respectively). Smoking was found to be associated with exposure to pro-tobacco advertising, peer smoking, parental smoking, and an lack of awareness of the risks (Siziya, Rudatsikira et al. 2007).

A larger study of 11,642 sixth and eighth graders from 32 schools in Delhi and Chennai, India, found a similar pattern of greater smoking prevalence among younger students. Overall, a quarter of the sixth grade students had used tobacco while about 9% of the第八 graders had done so. Within each grade, smoking likelihood increased with age (Reddy, Perry et al. 2006). These troubling findings were investigated further to determine why sixth graders were so much more likely to smoke. These younger students were found to be much more susceptible to tobacco advertising than the eighth graders, and scored lower on all psychosocial factors, including the ability to resist peer pressure, knowledge of the dangers of smoking, and the perceived social acceptability of smoking (Stigler, Perry et al. 2006).

Findings about smokers among older students mimic these results. A 23 country investigation of over 19,000 university students in non-health disciplines found a consistent association between smoking habits and beliefs about smoking even as the level of smoking varied significantly in this sample of developed and developing countries (Steptoe, Wardle et al. 2002).
One of the primary influences on smoking beliefs and a major driver of youth smoking is the tobacco industry, which dedicates considerable time and money to understanding young smokers and young potential smokers. To illustrate the care with which this task has been undertaken in the past, we examined the youth component of Project Battalion, a strategic plan BAT crafted with Bain & Co. in the mid-1990s that was intended to help the company overtake PMI as the largest tobacco firm. BAT’s YAUS plan (young adult urban smoker) called for developing detailed information on many aspects of YAUS psychology and behavior. A preliminary list of ingredients for their database is shown in Figure 2. Figure 3 shows BAT’s high-priority data needs in the YAUS market.

Figure 2: BAT’s YAUS Database, preliminary draft

B. YAUS factbase,
1. How are YAUS defined in your market? - age band, urban vs rural, income? - how does this relate to available consumer data eg CGS?
2. What is the relative value of YAUS? - switching patterns over a lifetime. - quitting rates.
• Data requested: smoking history data, loyalty & quitting rates by age group (if not on CGS).
3. How can we sub-segment YAUS? - habits, lifestyle and attitudes of YAUS
• Data requested: habits, lifestyle and attitude data. Focus groups amongst YAUS.
4. Which brands appeal to YAUS? - appeal of brands to YAUS vs other groups.
• Data requested: brand concept / advertising research, brand image data.

Source: LTDL

Figure 3: BAT’s Key YAUS Data Needs, preliminary draft

YAUS:
1. Psychographic / lifestyle segmentation and mapping to brands.
2. Triggers for brand selection (peer group, advertising etc).
3. Role of cigarettes in life
4. Attitudes towards brands (where CGS insufficient).
5. Switching behavior / repertoire.
6. Smoking history of all age groups to determine switching behavior.
7. Importance of price

Source: LTDL

BAT Industries. (1996). "Information Request for Lights and Yaus Factbases." British American Tobacco, 700718220-700718221, from http://legacy.library.ucsf.edu/tid/bjt53a99. For more detailed versions of these lists see:
As one BAT executive commented, YAUS are the “most important target group” and noted “[l]oyalty won can bring long lasting benefits - (how many 30 year olds still think Timberlands, Wayfarers and Levi's are the trendiest things to be seen in despite those in the know wearing Caterpillars, Arnett's and Diesel?)”

In the planning stage of this project alone, BAT engaged consultants Bain & Co for three and a half months. The company also developed extensive, carefully tuned questionnaires for street surveys to learn how to best influence young smokers and candidate smokers: “Another distinctive characteristic of the YAU segment is the fact that YAUs have little or no experience in buying many types of products…To determine what actually influences these [people]...would be a powerful marketing tool.” BAT eventually recruited its global staff of marketers and brand managers to help populate a master database to inform its strategies.

TTCs have used intensive research of this kind to influence youth to start smoking or continue smoking in the vast majority of countries for which data are available. In Argentina, both BAT and PMI—the market leaders—used finely nuanced psychographic strategies to recruit and retain teen smokers (Braun, Mejia et al. 2008). Throughout Asia, BAT, PMI, and JTI employed similar strategies to create a culture of tobacco among youth and to change societal norms in favor of smoking (Knight and Chapman 2004a; Wen, Chen et al. 2005).

c. Information failures: targeting women

Women are attractive to TTCs for many of the same reasons that underlie TTC interest in youth. In most countries and in most age groups women smoke less than men, which makes women an expansion market and a contestable market segment for competing TTCs. This discrepancy between male and female smoking rates is especially pronounced in the earlier stages of the tobacco epidemic and the pattern of smoking prevalence for women often lags behind that for men by two decades or more (Lopez, Collishaw et al. 1994; Amos 1996). Given the low female smoking rates in most low- and middle-income countries—about one-tenth the rate for men in many Asian and African countries (Mackay and Eriksen 2002)—some authors have claimed that selling cigarettes to women is the world’s largest product marketing opportunity (Kaufman and Nichter 2001).

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Currently there are approximately 250 million female smokers, representing about 22% of women in developed countries and about 9% of women in developing countries. Already there are more female smokers in LMICs than in developed countries, and without swift interventions, many observers expect their numbers to increase as the population of women increases, as their incomes rise, as traditional cultural constraints weaken, and as they are targeted with sophisticated pro-smoking campaigns by TTCs (Mackay and Amos 2003).

The tobacco industry has about 90 years of experience in marketing their products to women, dating to the WWI era in the United States. At that time, female smoking symbolized independence and challenged social norms that had long defined smoking as an exclusively male prerogative. Tobacco companies were eager to promote gender equality in this context and quickly began to define their products in ways that appealed to women and influenced societal views to embrace the practice. By the end of the 1920s, the tobacco industry had begun to link cigarettes with images of glamour, elegance, and weight loss to broaden their appeal among women. At the same time, the industry also strengthened the earlier connection between smoking and women’s emancipation, thus maintaining appeal with feminists as well. By the mid-1930s, tobacco companies and their advertising agencies had learned how to manipulate customer tastes, for instance as when they succeeded in making green a fashionable color—a shade chosen to complement Lucky Strike’s package (Brandt 1996).

Over the last several decades TTCs have refined their approach to marketing tobacco products to women in developed countries, and these strategies are now being applied to new markets. Themes familiar from the history of tobacco advertising in developed countries are being used again, including smoking as emancipation, smoking as alluring, and smoking as a symbol of social mobility, relaxation, and western-style modernity and beauty. These themes and campaigns throughout Asia have been reviewed by Kaufman and Nichter (Kaufman and Nichter 2001). The strategies used to promote the world’s most popular women’s brand, Virginia Slims, provide a case study in these methods (Toll and Ling 2005).

These advertising methods have the potential to create a smoking-related epidemic throughout the developing world. Given women’s roles in pregnancy, child rearing, and other domestic activities, female smoking may have worse consequences than those of male smoking because of the higher potential to expose young children, infants, and fetuses to the effects of tobacco (Mackay 1996; Kaufman and Nichter 2001; Mackay and Amos 2003; Bloch, Althabe et al. 2008).

TTC campaigns to encourage women to smoke explicitly recognize and promote gender differences in the perceptions, habits, and motivations that impinge on tobacco use. Many independent researchers have also documented these discrepancies in broad, multi-country studies and reviews (Amos 1996; Mackay and Crofton 1996; Richmond 1997b; DeLand, Lewis et al. 2000; Ernster, Kaufman et al. 2000; Kaufman and Nichter 2001; Mackay and Amos 2003), and in specific country contexts including Korea (Lee, Carpenter et al. 2009), Malaysia and the Philippines (Morrow and Barraclough 2003a), Singapore and Vietnam (Morrow and Barraclough 2003b).
Tobacco control advocates have yet to embrace gender-specific interventions with the same enthusiasm displayed by TTCs’ and their marketing departments. All of the publications cited in the previous paragraph note that women’s motivations to smoke are carefully fostered and shaped by TTC campaigns and that countering or reversing this influence calls for a similarly targeted effort by control advocates. This asymmetric attention to women and gender created a smoking-related epidemic for women in developed countries in the 20th century and appears likely to produce the same process in developing countries in the coming decades unless corrective action is undertaken by national authorities.

d. Information failures: scientific controversy

The tobacco industry has long sought to change the perception of smoking as dangerous to health. In the first half of the twentieth century tobacco companies attempted to diffuse customers’ concerns about the healthfulness of cigarettes by associating their brands with athletes, the medical profession, and describing their products with words such as “mild” and “smooth.” But by the mid-twentieth century there was substantial medical evidence connecting smoking with increased cancer risks. As Allan Brandt has written, this was a threat of unprecedented magnitude for any major industry, and companies responded with a wholesale shift in strategy. Maintaining the cigarette’s viability, companies knew, would “depend on the successful production of a scientific controversy,” about smoking and health generally, rather than trying to communicate healthful associations at the brand level (Brandt 2007: 160).

The tobacco industry’s efforts to create controversy about the risks of smoking were built around ostensibly scientific research. Since this research began appearing in the 1950s it has had various origins, including skeptical independent scientists, but by and large pro-tobacco “science” has been produced or directly influenced by the industry itself for the purposes of misleading customers, forestalling unfriendly regulation, and avoiding legal liability. This strategy has been enormously successful in developed countries (Kluger 1996; Brandt 2007). Since 1977 the major TTCs have coordinated their efforts to deny the risk of their products and promote controversy around tobacco and health under a project known as Operation Berkshire (Francey and Chapman 2000).

In low- and middle-income nations TTCs have pursued a similar agenda of producing a scientific controversy to reduce smokers’ motivation to quit, to cloud the scientifically accepted links between tobacco and ill health, and to weaken the arguments of control advocates and non-smokers. In the mid-1990s PMI convened an Asian version of Operation Berkshire known as ARTIST, the Asian Regional Tobacco Industry Science Team, which was intended to facilitate cooperation and information sharing between PMI and national tobacco monopolies in the region to defeat expected smoke-free legislation, and later to manage the tobacco and health discussion more generally. ARTIST members included national monopolies from Korea, China, Thailand, and Taiwan (Tong and Glantz 2004). Through ARTIST and extensive networking, PMI was able to place consultants in Thailand’s prestigious Chulabhorn Research Institute (CRI), a regional leader and WHO Collaborating Centre for Capacity Building and Research in Environmental Health.
Science. These consultants were able to change CRI’s research and teaching activities in ways that favored TTC interests, especially in the environmental toxicology department (MacKenzie and Collin 2008a).

Globally, many TTCs have funded studies intended to dismiss or confuse the damaging evidence on environmental tobacco smoke in an attempt to preclude a scientific consensus and prevent indoor smoking regulations (Muggli, Forster et al. 2001; Muggli, Hurt et al. 2003). Similar attempts have been documented in Central and South America (Barnoya and Glantz 2002; Barnoya and Glantz 2003), El Salvador (Kummerfeldt, Barnoya et al. 2009), Europe and Asia (Muggli, Forster et al. 2001; Assunta, Fields et al. 2004; Barnoya and Glantz 2006). TTCs have secretly supported research that favored their positions in many other fields as well, including anthropology, economics, philosophy, political science, psychology, and sociology (Landman, Cortese et al. 2008).

TTCs have also targeted individual studies they deemed threatening and have dedicated substantial resources to mitigating their impact. Between 1988 and 1998 WHO’s International Agency for Research on Cancer (IARC) spent about $2 million on a European study of SHS, which concluded that exposed non-smokers faced a sharply increased risk of lung cancer. In a single year—1994—Philip Morris alone spent the same amount on general countermeasures and invested a further $4 million in research it believed would undermine IARC’s results (Ong and Glantz 2000).

e. Information failures: advertising and regulation

Regulation is the primary means by which national governments can control the flow of information from TTCs to their citizens. Product labeling requirements and bans or other limitations on direct and indirect advertising are common interventions, all of which are recommended by WHO (WHO 2008a). However straightforward these measures may seem, effective implementation is routinely undermined by TTCs. This section presents the importance of tobacco promotion to smoking initiation and then examines the methods TTCs have used to evade, undermine, and even benefit from national regulatory actions.

Advertising is a primary mechanism by which the tobacco industry established itself in the United States in the first half of the 20th century, and then in other developed countries, and is now using the same techniques in LMICs (Brandt 1996; Wellman, Sugarman et al. 2006). In the US advertising has been linked with consumption empirically (Tye, Warner et al. 1987). In LMICs, as discussed above, advertising is playing a crucial role in creating demand among women and children and promoting the social acceptability of smoking in general.

There is ample evidence from low- and middle-income countries to show that exposure to TTC advertising is an important risk factor for smoking among all demographics (Stebbins

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14 A recent global meta-analysis concluded that there was no relationship between advertising and primary demand for cigarettes (Capella, Taylor et al. 2008). Others have found that advertising bans do not affect youth smoking (Nelson 2003). These broad conclusions were not in accordance with the majority of studies consulted for the present review. Blecher, (2008), for instance, is a wide-ranging review with opposite findings.
Two interesting examples come from Kenya and India. A study of Kenyan adolescents found that pro-smoking ads were by far the most common source of information about tobacco (88% of students had recently seen an ad). The next most common source, broadcast media, had reached only 47% of students with an anti-tobacco message (Åstrem and Ogwell 2004). In India, students who were exposed to tobacco advertising were more likely to smoke overall. Some circumstances resulted in a nearly four-fold increase in the likelihood of smoking, as was the case with girls who were offered free cigarettes (Shah, Pednekar et al. 2008).

TTCs have opposed and circumvented national regulatory actions in numerous documented cases from low- and middle-income countries. In general, these examples support Blecher’s conclusion that partial bans on advertising are ineffective because they are too easy for tobacco companies to circumvent (Blecher 2008). In particular, the TTCs’ approaches have varied by setting. Some representative examples are described next.

Tobacco brands and smoking can both be promoted without depicting tobacco products or their use. In Mumbai, India, tobacco companies used the pre-enforcement period before a partial ban on tobacco advertising to connect smoking with related imagery that would remain legal after the ban took effect. By linking cigarettes and smoking to brand symbols, the industry laid the groundwork for ads that communicated the same messages after the ban as before. An increase in advertising overall and the launch of non-tobacco products under tobacco brand names also preceded the ban. Post-ban advertising for non-tobacco products thus became an effective vehicle for communicating tobacco brands and strengthening the lifestyle imagery associated with smoking without depicting cigarettes or smoking (Bansal, John et al. 2005).

TTCs promote themselves as socially responsible makers of adult products and offer to prove the claim by funding anti-smoking programs for children. However, in many instances TTCs’ alleged public service anti-smoking programs for youth have in fact been “case stud[ies] in duplicity”—attempts to convert smokers in that demographic while also forestalling effective control legislation (Assunta and Chapman 2004a: ii37). This tactic has been systematically documented around the world and has been shown to operate in many ways, such as by marginalizing actual anti-smoking campaigns, by making anti-smoking messages unappealing, by reinforcing the adult image of smoking, and by infiltrating important groups including parents, teachers, and policymakers (Landman, Ling et al. 2002). Detailed case investigations have been done for Malaysia (Assunta and Chapman 2004a; Assunta and Chapman 2004b), Myanmar (Chapman 2004), and Latin America (Sebrié and Glantz 2007b).

TTCs have often embraced legislation and “cooperated” with regulators, but typically in ways that benefit tobacco companies at the expense of public health. In a case study of TTC activity in Malaysia, Assunta and Chapman (2004b) found that the industry’s first line of defense against proposed advertising and labeling regulation was to delay and then propose alternatives they could evade. For instance, in the 1970s TTCs agreed not to air ads on television until after 8PM, conceding an hour of prime time. TTCs compensated by advertising more intensively in the remaining prime time and obtained a loophole to
sponsors live events at all times. TTCs also effectively undermined package labeling requirements by secretly surveying Malaysians and then negotiating warning phrases that had not been understood. The companies also argued against warnings with claims that other products with potential health risks from eggs to knives carried no similar labels. When labels were mandated, clever punctuation was used to change the meaning of approved phrases and minute typefaces were used to reduce their legibility (Assunta and Chapman 2004b).

TTCs have also used secretly sponsored research to weaken the perceived effectiveness of proposed bans. In the 1980s BAT ghostwrote a report on advertising bans and consumption in 16 countries. The report found that bans were ineffective because they had no impact on consumption and were even harmful because they prevented communication of product features such as filters and lowered tar. The document was then distributed under the name of a marketing professor from the City University of New York system, who was then secretly paid to present its results at conferences and media events (Davis 2008).

Indirect advertising has been important to maintaining TTC interests when direct methods are restricted. Sponsorship of sports teams or leagues is among the most common tactics because of the healthful connotation of athletics and the high exposure in print and broadcast media. BAT’s sponsorship of a Formula One auto racing team brought the company widespread attention during each of the league’s 16 annual races (Carlyle, Collin et al. 2004).

This pattern of co-opting, avoiding, or disregarding partial advertising restrictions has been common in all cases reviewed for the present study. Case examples include Latin America (Sebrié and Glantz 2007a; Sebrié and Glantz 2007b), China (O'Sullivan and Chapman 2000; Muggli, Lee et al. 2008), Thailand (MacKenzie, Collin et al. 2004b), Cambodia (MacKenzie, Collin et al. 2004a), and Hong Kong (Knight and Chapman 2004c).

TTCs have found vulnerabilities even in complete advertising bans. In Singapore, for instance, TTCs circumvented a total ad ban by advertising on Malaysian television stations that broadcast over the border. Another tactic, employed by Philip Morris, was to launch a non-tobacco product that could be advertised legally (a wine cooler) to build brand recognition and identity. After a few weeks PM introduced a cigarette under the same brand (Assunta and Chapman 2004c).

**STAKEHOLDER ANALYSIS RESULTS**

The stakeholder analysis suggests that the actors who oppose the dissemination of information about the risks of smoking are often more numerous and better organized than those who would publicize the risks. The TTCs were all designated high power and assigned high opposition to conveying risk information because they have deliberately disguised tobacco’s risks for decades, as discussed above. Governments where TTCs are headquartered or have a significant presence were also assigned both high power and high
opposition. This stance has been demonstrated recently during the negotiations of the FCTC when developed countries with strong tobacco industries lobbied heavily to weaken the agreement and succeeded in doing so. Examples include Germany (Gilmore, Nolte et al. 2002), Japan (Assunta and Chapman 2006), and the United States (Myers and Wilkenfeld 2001). Economic considerations led to opposition from several groups that benefit from TTC spending and other aspects of the tobacco trade, including advertising and media firms, tobacco distributors and retailers, and tobacco farmers. Sponsored groups such as sports teams often oppose the communication of risk information, as well. Scientists are supported by the tobacco industry—sometimes secretly—to confuse the public discussion of risk information by disputing the validity of specific studies or by drawing attention to other health threats not associated with smoking. Power was assigned to each of these groups based on our interpretation of the literature we reviewed. National tax authorities often oppose measures to reduce smoking because of its perceived negative impact on tax revenues and usually have very high power. Finally, smokers themselves are usually co-opted by the tobacco industry to oppose regulations that communicate risk information.

Frequently, many important groups that highly support the communication of tobacco-related risk information and have the potential to exercise high power are not mobilized. These groups include non-smokers, local health NGOs, national health authorities, and nurses, physicians, and other health professionals. In developed countries, where tobacco control has made rapid progress in the past 15 years, these health advocates have played an indispensable role. International agencies such as the World Bank and WHO are both highly supportive of risk communication; they were assigned high power and medium power, respectively. These assignments reflect the two institutions’ influence in the economic areas that now dominate tobacco policy in most low- and middle-income countries. International NGOs are often highly supportive of educating citizens about the risks of tobacco, but their degree of organization varies. In some cases, as in Thailand, effective cooperation between international and national control advocates yielded tough anti-tobacco regulation. But in other instances international NGOs have not operated effectively in support of control advocacy efforts in LMICs. The pharmaceutical industry produces smoking cessation aids including nicotine patches, nicotine gum, and drug therapies such as veranicline. The industry is very powerful, but in most low- and middle-income countries is not mobilized because too few people can afford their products.
<table>
<thead>
<tr>
<th>Actor Name</th>
<th>Position on Conveying Risk Information</th>
<th>Power</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philip Morris International</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>British-American Tobacco</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>Japan Tobacco International/ RJ Reynolds</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>Governments of countries where TTCs are based (USA, UK, Japan)</td>
<td>High Opposition</td>
<td>High</td>
<td>National Government</td>
</tr>
<tr>
<td>Media (newspapers, TV)</td>
<td>High Opposition</td>
<td>Medium</td>
<td>Large Firms</td>
</tr>
<tr>
<td>TTC-Sponsored Sports Teams or Other Entities</td>
<td>Medium Opposition</td>
<td>Medium</td>
<td>Sports Organizations, Charities</td>
</tr>
<tr>
<td>TTC-Sponsored Scientists</td>
<td>Medium Opposition</td>
<td>Medium</td>
<td>Researchers</td>
</tr>
<tr>
<td>Tobacco Distributors and Retailers</td>
<td>High Opposition</td>
<td>High</td>
<td>Firms Of All Sizes</td>
</tr>
<tr>
<td>National Economic Authorities</td>
<td>High Opposition</td>
<td>Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>Tobacco Farmers</td>
<td>High Opposition</td>
<td>Low to Medium</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Smokers</td>
<td>Low Opposition</td>
<td>High</td>
<td>Individuals</td>
</tr>
<tr>
<td>Non-Smokers (especially women and the young)</td>
<td>Low to Medium Support</td>
<td>Not Mobilized</td>
<td>Individuals</td>
</tr>
<tr>
<td>Independent Scientists</td>
<td>High Support</td>
<td>Medium</td>
<td>Researchers</td>
</tr>
<tr>
<td>Local Health NGOs</td>
<td>High Support</td>
<td>Not Mobilized to High</td>
<td>NGOs</td>
</tr>
<tr>
<td>Makers of Nicotine Patches, Quit Aids</td>
<td>High Support</td>
<td>Not Mobilized</td>
<td>Pharmaceutical Firms</td>
</tr>
<tr>
<td>Physicians and other medical professionals</td>
<td>High Support</td>
<td>Not Mobilized</td>
<td>Individuals and Medical Associations</td>
</tr>
<tr>
<td>National Health Authorities</td>
<td>High Support</td>
<td>Not Mobilized to Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>World Health Organization</td>
<td>High Support</td>
<td>Medium</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The World Bank</td>
<td>High Support</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>International Tobacco Control Advocates (Includes NGOs such as the American Cancer Society)</td>
<td>High Support</td>
<td>Low to Medium</td>
<td>NGOs, Universities</td>
</tr>
</tbody>
</table>
DOMESTIC PRODUCERS, TTCs, AND TRADE DISPUTES

TTCs and the countries that support them have used trade disputes and trade liberalization to open new markets for their products. In a pattern documented in 1985 by Shepherd for Latin America (Shepherd 1985), and by many others since (Chaloupka and Laixuthai 1996; Dickinson 2000; Vateesatokit 2003; Lambert, Sargent et al. 2004; Shaffer, Brenner et al. 2005; Zeigler 2006; Lee, Kinh et al. 2008), TTCs enlist supportive governments—often the United States—to use trade disputes to open new markets to tobacco imports. Typically, markets have been closed to tobacco imports to protect a national monopoly, which is sometimes government-owned. In the past, the US has used Section 301 of the 1974 Trade Act to impose sanctions on governments unwilling to accept tobacco imports. Many governments have been forced to accept tobacco imports as a result, including Japan, Korea, and Taiwan. However, Thai tobacco control advocates and international collaborators successfully lobbied the American public to oppose the use of Section 301 sanctions to promote US tobacco exports. In response to this political pressure the US government then referred its case to the GATT. Although Thailand was forced to open its market to imported tobacco, the GATT ruled that Thailand could regulate however it wished provided that domestic and imported tobacco were treated equally. Thailand has maintained its strict tobacco control laws, but even in that case, as in all other cases before it, opening a formerly closed market to TTCs has led to increases in smoking. In the Thai case, the effects have been mitigated somewhat by a two percent excise tax designed to fund health promotion (Chaloupka and Laixuthai 1996; Vateesatokit 2003; Park, Kim et al. 2004; Wen, Cheng et al. 2005).

Developed country governments have assisted the overseas expansion of their tobacco industries in several ways. In 2003 US congressmen Richard Durbin and Henry Waxman detailed many of these practices in a letter to President George W. Bush, claiming that the government had advanced positions suggested to it by Philip Morris, conducted market research for tobacco companies, failed to crack down on smuggling even though the practice was found to benefit terrorists, and defended the industry in court when sued by Canada and the European Union (Durbin and Waxman 2003). In an investigation of some of these practices, the General Accounting Office found that the US Department of Agriculture’s Foreign Agricultural Service routinely promoted tobacco in violation of US law and helped companies identify opportunities. The General Accounting Office illustrated this point by quoting briefing reports, such as this one from 2002: “Younger Malaysians prefer to smoke American-blended cigarettes. With about half of the population below age 25, the demand for these cigarettes should continue to climb. The local market share for American-blend cigarettes has expanded from 38 percent in 1998 to 45 percent in 2001” (United States General Accounting Office 2003: 11).

The Japanese government has been similarly supportive and in some respects is even more entwined with tobacco through its 50% ownership of Japan Tobacco. During negotiations over the language of the FCTC the Japanese government intervened repeatedly with suggestions that benefited JT and other TTCs. The Japanese suggestions—many of which were included in the final text—added weakening words such as “may” and “appropriate” to proposed regulations. For instance, where the draft text on package warnings read,
“include a pictogram,” Japan successfully lobbied for a change to “may include a pictogram.” This and other changes turned requirements into suggestions and significantly weakened the treaty (Assunta and Chapman 2006). Researchers have documented similar pro-industry interference with international regulatory attempts by the governments of Germany and the UK (Gilmore, Nolte et al. 2002; Neuman, Bitton et al. 2002).

Most actors in our analysis strongly favor trade liberalization for tobacco, including TTCs, the developed countries that represent them, and the World Trade Organization. These actors all have high power. Tobacco retailers and distributors often favor market liberalization because they stand to gain economically from increased sales. Smokers themselves are often highly supportive of TTC entry into their markets and wield considerable power by purchasing smuggled cigarettes (discussed below). A standard TTC strategy is to advertise while markets are still closed, which helps create demand among smokers and fosters support in the media because of the ad revenue.

Opposing liberalization for tobacco imports are national tobacco monopolies and national authorities in finance and health. These actors are powerful domestically, but they have been defeated by TTCs and the rich country governments that support them in every case yet adjudicated. Those with the most to lose from market entry by TTCs—non-smokers—are usually not mobilized. NGOs and public health advocates have played crucial roles in developed countries where substantial progress has been made in tobacco control. In the United States, for instance, the litigation that led to the MSA was initiated by private individuals and non-profit organizations. Thailand’s success in establishing high tobacco taxes and strict advertising curbs also was due largely to the influence of NGOs and activists. We did not find examples of progress in tobacco control in settings where these groups were not mobilized.

However, this stakeholder analysis of tobacco trade disputes suggests that most LMICs should focus their tobacco control efforts in areas other than restricting market access through trade barriers. In the Thai-US case the GATT ruled that tobacco regulations had to apply equally regardless of the domestic or international origin of the product. Thailand’s right to restrict tobacco uniformly was upheld. This precedent in international trade law implies that import restrictions may be useful in countries with little or no domestic production. In countries that produce tobacco, regulators can avoid international legal challenges by focusing on other strategies, such as ad bans, graphic warning labels, ingredient disclosure requirements, and high tax rates.
Table 3: Stakeholder Analysis of Domestic Producers, TTCs, and Trade Disputes

<table>
<thead>
<tr>
<th>Actor Name</th>
<th>Position on Opening Markets</th>
<th>Power</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philip Morris International</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’tl Tobacco Co.</td>
</tr>
<tr>
<td>British-American Tobacco</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’tl Tobacco Co.</td>
</tr>
<tr>
<td>Japan Tobacco International/ RJ Reynolds</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’tl Tobacco Co.</td>
</tr>
<tr>
<td>Governments of countries where TTCs are based (USA, UK, Japan)</td>
<td>High Support</td>
<td>High</td>
<td>National Government</td>
</tr>
<tr>
<td>World Trade Organization</td>
<td>High Support</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The World Bank</td>
<td>High Support</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>Tobacco Distributors and Retailers</td>
<td>High Support</td>
<td>High</td>
<td>Firms Of All Sizes</td>
</tr>
<tr>
<td>Smokers</td>
<td>High Support</td>
<td>High</td>
<td>Individuals</td>
</tr>
<tr>
<td>Tobacco Farmers</td>
<td>Variable</td>
<td>Low to Medium</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Media (newspapers, TV)</td>
<td>Low to Medium Support</td>
<td>Medium</td>
<td>Large Firms</td>
</tr>
<tr>
<td>Local Health NGOs</td>
<td>High Opposition</td>
<td>Not Mobilized to High</td>
<td>NGOs</td>
</tr>
<tr>
<td>National Tobacco Monopolies</td>
<td>High Opposition</td>
<td>Medium to High</td>
<td>National Monopoly Firms</td>
</tr>
<tr>
<td>Non-Smokers (especially women and the young)</td>
<td>Low Opposition</td>
<td>Not Mobilized</td>
<td>Individuals</td>
</tr>
<tr>
<td>National Health Authorities</td>
<td>High Opposition</td>
<td>Not Mobilized to Medium</td>
<td>National Government</td>
</tr>
</tbody>
</table>
Cigarette smuggling is a large and extremely profitable enterprise in which TTCs are “complicit” (Collin, LeGresley et al. 2004). The global cigarette trade in 2006 was estimated at about 5,767 billion sticks, of which 10.7%—about 600 billion sticks—were sold illicitly. This estimate includes large- and small-scale smuggling along with counterfeit production. This trade represents between $40 and $50 billion in lost government tax revenues annually (Framework Convention Alliance 2007). Although there is no definitive way to place a value on these illicit cigarettes, 600 billion sticks represents 30 billion packs, which would be worth several times more than the avoided taxes in many markets.

Smuggling is an important instrument in TTCs’ quest to enter and dominate attractive LMIC markets, many of which have or had barriers to entry such as high tariffs or outright bans on imported tobacco. Smuggling is a highly profitable endeavor and is tacitly encouraged by TTCs on both supply and demand sides of the target economy. On the demand side, smuggling creates demand and promotes consumption of the smuggled product. On the supply side, smuggling makes products available at prices and in quantities that would not exist otherwise. In addition to these effects, smuggling builds internal political pressure for allowing TTCs free access to domestic markets as smokers develop preferences for imported products and as middlemen and retailers become accustomed to increased sales and profits. At the same time, smuggling deprives governments of tax revenues by undercutting the legal tobacco trade, which weakens governmental ability to mount control efforts and makes TTC philanthropy and sponsorship harder to resist. TTCs have typically blamed smuggling on criminals, but research and industry documents have conclusively shown that these companies have considered smuggling an important distribution channel and have incorporated responsibilities related to it in their management structures (Shepherd 1985; Joossens 1998; Yamey 2000; Campaign for Tobacco-Free Kids 2001a; Bialous and Shatenstein 2002; Collin, LeGresley et al. 2004; MacKenzie, Collin et al. 2004a; Wen, Cheng et al. 2005; Lee and Collin 2006; Novotny 2006; Wen, Peterson et al. 2006; Armendares and Reynales Shigematsu 2006a; Armendares and Reynales Shigematsu 2006b; LeGresley, Lee et al. 2008; Nakkash and Lee 2008; West, Townsend et al. 2008). Further, TTCs often refer to smuggling as an inevitable consequence of increased taxes, but this dynamic has not been borne out empirically because the volume of smuggling does not always relate to the level of taxation (Joossens 1998).

The positions and power in the stakeholder analysis of smuggling were assigned as follows. The TTCs all have high support for smuggling, and all have high power because of their decades of marketing and distribution expertise and their deep pockets. In the past, the TTCs have enjoyed high support from their governments, which have negotiated favorable trade accords and helped the TTCs open new markets. But after this practice was publicized by control advocates during US negotiations with Thailand, rich country governments have supported tobacco companies less overtly (Vateesatokit 1997; Chantornvong and McCargo 2001; Vateesatokit 2003). Rich country governments have taken few effective measures to stop smuggling, and have resisted efforts to help track or
control the supply of untaxed cigarettes. On these grounds a “low to medium” support rating was assigned.

Criminal elements of varying size and sophistication engage in cigarette smuggling as a business. Although the available evidence is limited to rich country settings, it is likely that the same dynamics apply in LMICs. Organized crime is very powerful, but their support for cigarette smuggling depends on the potential profit margin, typically determined primarily by the tax rate in the destination country if the products are imported legally, and solely by demand in countries where the smuggled product is not otherwise available. Where other goods offer more favorable risk–reward ratios, organized criminals tend to leave cigarette smuggling to casual criminals. Casual criminals tend to operate where the risks and rewards are both low, but their power was rated as medium because of the normalizing effect of their activities. They tend not to view themselves as criminals and are not viewed as such by tobacco purchasers (Wiltshire, Bancroft et al. 2001; Hornsby and Hobbs 2007; Fleenor 2008).

Acceptance of cigarettes and smuggling creates a culture of smoking that is hard to regulate or change. Targeted customers in destination countries are the existing and potential smokers. Although this group is not organized, taken as a whole it exercises high power and represents the current or potential market for tobacco products. Smokers highly support smuggling because it either lowers prices by evading taxes or supplies a product that is otherwise unavailable. To the extent that they benefit, local middlemen and retailers join their customers in supporting smuggling.

International health and development authorities, such as the WHO and the World Bank, both strongly oppose smuggling. The World Bank was assigned high power because of its influence in both health and economic policy discussions. The WHO was assigned only medium power because it is less influential in ministries relevant to tobacco but outside of health, such as those of agriculture and finance. Further, the TTCs have in the past successfully penetrated the WHO and watered down its recommendations, including the Framework Convention on Tobacco Control, one of WHO’s flagship achievements (WHO 2005; Assunta and Chapman 2006).

National authorities highly oppose smuggling because it reduces government tax revenues but still incurs all the costs of duty paid tobacco sales. However, national governments are often unprepared to confront sophisticated, well-funded TTCs and may not be organized enough to respond effectively to smuggling. For this reason a power of not mobilized to medium was assigned. In some cases, including Thailand, international control advocates—university researchers, NGOs, and officials of other governments—have played an important role in assisting national authorities to prepare and execute effective control strategies, such as licensing manufacturers and distributors, and mandating chain-of-custody recordkeeping and product marking (Joossens and Raw 2003). However, there is no clear pattern of such effective intervention and therefore a power of low to medium was assigned.
The results of the stakeholder analysis of smuggling are shown in Table 4, below. Our analysis shows that the entities supporting smuggling are greater in number and tend to have greater power than the entities that oppose the practice. This suggests that smuggling efforts are likely to succeed to a greater degree than will control efforts aimed at minimizing the illicit tobacco trade. This exercise indicates that LMIC policymakers and tobacco control advocates must plan a response to smuggling before TTCs arrive, or in cases where TTCs are already doing business, these groups must plan a carefully coordinated, politically sophisticated strategy if there is to be any chance of success. This conclusion is supported by evidence from North America and the European Union, where tobacco smuggling is widespread despite relatively strong governments and relatively effective anti-tobacco lobbies in those regions (Joossens and Raw 1995; Kelton and Givel 2008; Lakhdar 2008; West, Townsend et al. 2008).
Table 4: Stakeholder Analysis of Smuggling

<table>
<thead>
<tr>
<th>Actor Name</th>
<th>Position on Smuggling</th>
<th>Power</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philip Morris International</td>
<td>High Support</td>
<td>High</td>
<td>Transnational Tobacco Co.</td>
</tr>
<tr>
<td>British-American Tobacco</td>
<td>High Support</td>
<td>High</td>
<td>Transnational Tobacco Co.</td>
</tr>
<tr>
<td>Japan Tobacco International/RJ Reynolds</td>
<td>High Support</td>
<td>High</td>
<td>Transnational Tobacco Co.</td>
</tr>
<tr>
<td>Governments of countries where TTCs are based (USA, UK, Japan)</td>
<td>Low to Medium Support</td>
<td>High</td>
<td>National Government</td>
</tr>
<tr>
<td>Organized Crime</td>
<td>Medium Support</td>
<td>High</td>
<td>Criminal Element</td>
</tr>
<tr>
<td>Casual Criminals</td>
<td>Low Support</td>
<td>Medium</td>
<td>Criminal Element</td>
</tr>
<tr>
<td>Smokers in Destination Countries</td>
<td>High Support</td>
<td>High</td>
<td>Individuals</td>
</tr>
<tr>
<td>National Authorities (Tax, Health) in Destination Countries</td>
<td>High Opposition</td>
<td>Not Mobilized to Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>World Health Organization</td>
<td>High Opposition</td>
<td>Medium</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The World Bank</td>
<td>High Opposition</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>International Tobacco Control Advocates (Includes NGOs such as the American Cancer Society, academic researchers, depending on situation)</td>
<td>High Opposition</td>
<td>Low to Medium</td>
<td>NGOs, individuals, universities</td>
</tr>
</tbody>
</table>
RAISING TAXES AND ESTABLISHING SPATIAL SMOKING RESTRICTIONS

Raising taxes on cigarettes and establishing spatial restrictions on smoking are two important control strategies. Both are recommended in the MPOWER Report (WHO 2008a). The World Bank’s Curbing the Epidemic cites the advantages of spatial restrictions in reducing non-smokers’ exposure to ETS and lowering consumption by decreasing the opportunities to smoke, which is supportive of quitting attempts. Curbing the Epidemic argues for raising taxes on tobacco as a means to reduce consumption, especially among young smokers, who are more price sensitive. Across smokers in all low- and middle-income countries, the World Bank estimates the price elasticity of tobacco as -0.8, meaning that a 10% rise in price will cause an 8% decrease in demand. Increased taxation of tobacco is also frequently recommended by the International Monetary Fund as part of economic stabilization programs (Jha 1999).

Given this consensus among important multilateral agencies, what are the most common barriers to implementing these policies in low- and middle-income countries? We present the results of our stakeholder analysis of this problem below. The primary opposition to both taxation and spatial restrictions is TTCs and economically interested allies. The predominant strategy for opposing spatial restrictions is through misinformation in two dimensions. First, TTCs attempt to disguise the dangers of ETS by clouding the debate with pseudo-science to prevent a public consensus and forestall legislation, as discussed above. Second, TTCs marshal support by claiming that spatial restrictions will cause economic harm to affected businesses, such as bars and restaurants (Muggli, Forster et al. 2001).

TTCs have countered attempts to raise taxes primarily by not implementing measures to restrict smuggling, some of which occurred under their direct or indirect control, as Collin, LeGresley, et al. have shown for BAT’s operations in Asia (Collin, LeGresley et al. 2004). We provided a separate stakeholder analysis of smuggling in the previous section.

We present a combined stakeholder analysis for spatial restrictions and raising taxes in Table 5, below. Opposing policies in both areas are TTCs. Also opposing spatial restrictions are industry-sponsored scientists, who contribute inaccurate or misleading information on ETS, and smokers, who want to protect their ability to smoke everywhere. Opposing spatial restrictions from an economic perspective are farmers, distributors, and retailers, all of whom fear a direct loss of business in reduced tobacco sales. In opposition for indirect reasons are business owners who believe they will lose customers if smoking is banned in their establishments, as in bars and restaurants. Tax authorities are likely to oppose spatial restrictions as well because TTCs argue convincingly that government revenues will be compromised. Similarly, the constituencies in the hospitality sector are often organized by the tobacco industry on the basis of misinformation as well (Dearlove, Bialous et al. 2002). One response from tobacco control advocates is to provide evidence of the effects of these policies in other settings. In Massachusetts, for instance, smoking bans were found not to affect restaurant business (Bartosch and Pope 1999) and not to influence associated local tax revenues (Bartosch and Pope 2002). Italy’s national smoking ban was found not to adversely affect restaurants and cafes, either (Gallus, Zuccaro et al. 2001).
In San Francisco, a smoking ban led to rapid improvements in respiratory health for bartenders (Eisner, Smith et al. 1998). With the appropriate information, several of these groups could be persuaded to favor spatial restrictions.

Proponents of spatial restrictions are not always well organized. Among the most affected constituencies are non-smokers, but this group is not a political force in most low- and middle-income countries. Health NGOs, physicians, scientists, and national health authorities are typically supportive of spatial restrictions, but in many LMICs these groups often are not mobilized to press their case. However, when these groups become mobilized they have been very effective. Cessation product manufacturers could be recruited to support spatial restrictions if a market opportunity could be demonstrated or guaranteed by the government. The WHO and the World Bank are both supportive of spatial restrictions and can help foster support among senior policymakers. Especially in economic discussions, their participation could be helpful.

Proposals to raise tobacco taxes are likely to face resistance from TTCs. TTCs, their lobbyists, and their political connections have almost always suggested that smuggling will rise in response to tax increases. It is important to counter this influence with independent research from other settings. The sources we reviewed suggest that raising taxes increases revenue and does not necessarily lead to greater rates of smuggling. To gain political support, health groups can be mobilized with evidence on tax policy as a tool to reduce smoking. Domestic tobacco farmers who may be hurt be declines in consumption can be assisted to grow other crops.
<table>
<thead>
<tr>
<th>Actor Name</th>
<th>Position on Higher Taxes, Spatial Restriction</th>
<th>Power</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philip Morris International</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>British-American Tobacco</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>Japan Tobacco International/ RJ Reynolds</td>
<td>High Opposition</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>TTC-Sponsored Scientists</td>
<td>Medium Opposition</td>
<td>Medium</td>
<td>Researchers</td>
</tr>
<tr>
<td>Tobacco Distributors and Retailers</td>
<td>High Opposition</td>
<td>High</td>
<td>Firms of All Sizes</td>
</tr>
<tr>
<td>Hospitality Industry</td>
<td>High Opposition</td>
<td>Medium</td>
<td>Small- to Medium-Sized</td>
</tr>
<tr>
<td>National Economic Authorities</td>
<td>Medium to High Opposition</td>
<td>Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>Tobacco Farmers</td>
<td>High Opposition</td>
<td>Low to Medium</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Smokers</td>
<td>High Opposition</td>
<td>High</td>
<td>Individuals</td>
</tr>
<tr>
<td>Non-Smokers</td>
<td>Low to Medium Support</td>
<td>Not Mobilized</td>
<td>Individuals</td>
</tr>
<tr>
<td>Independent Scientists</td>
<td>High Support</td>
<td>Medium</td>
<td>Researchers</td>
</tr>
<tr>
<td>Local Health NGOs</td>
<td>High Support</td>
<td>Not Mobilized to Low</td>
<td>NGOs</td>
</tr>
<tr>
<td>Makers of Nicotine Patches, Quit Aids</td>
<td>High Support</td>
<td>Not Mobilized</td>
<td>Pharmaceutical Firms</td>
</tr>
<tr>
<td>Physicians and other medical professionals</td>
<td>High Support</td>
<td>Not Mobilized</td>
<td>Individuals and Medical Associations</td>
</tr>
<tr>
<td>National Health Authorities</td>
<td>High Support</td>
<td>Not Mobilized to Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>World Health Organization</td>
<td>High Support</td>
<td>Medium</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The World Bank</td>
<td>High Support</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The IMF</td>
<td>High Support</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
</tbody>
</table>
INTRA-GOVERNMENTAL INCENTIVE CONFLICTS

An important manifestation of the broader debate over tobacco occurs within governments. Most simply, some ministries, such as finance, are likely to support the tobacco industry because of the tax revenues it generates, while other ministries, such as health, are likely to oppose tobacco for the death, disability and related illness costs that it causes. This conflict is demonstrated in legal analyses, as in Korea, where there are conflicting laws in support of tobacco consumption and in support of tobacco control (Park, Kim et al. 2004). Other countries, such as the United States exhibit the same conflict by promoting control policies domestically and supporting TTC expansion internationally (Mackay 1994). One feature of this problem is that tobacco’s benefits in economic terms begin immediately (for farmers, producers, and tax revenues), while the costs in health terms take years to express themselves (and in other countries, when tobacco is exported). Further complexity comes from the asymmetric power of ministries of finance and health, which are infrequently in dialogue on tobacco or other matters of relevance to both.

As in other areas of this analysis, we find that intra-governmental conflicts are often based on mistaken information, which is frequently supplied by the tobacco industry as a means of promoting and protecting their interests. Tax and health policies need not be in conflict, and many authors have studied how to balance these policies (Abedian, Merwe et al. 1998; Chaloupka and Corbett 1998; Jha 1999; Warner 2000; Armendares and Reynales Shigematsu 2006a). Successful examples include inter-ministerial cooperation in Bhutan (Ugen 2003), Thailand (Vateesatokit 1997; Vateesatokit 2003), and Nepal (Karki 2002; Sussman, Pokhrel et al. 2007) where NGOs have played a large role (Efroymson 2007), rapid progress in Sri Lanka following the establishment of the National Authority on Smoking and Alcohol in 2006 (Parliament of the Democratic Socialist Republic of Sri Lanka 2006; CDC 2008), and strong legislation in India (Reddy and Gupta 2004).

The results of our stakeholder analysis of intra-governmental conflicts are presented in terms of support for tobacco (Table 6). This conflict is often defined as between the ministry of finance and the ministry of health, but there are many other important players who are represented directly or indirectly. Within the government the ministry of agriculture is important in tobacco producing regions. Within the countries, active political forces include farmers and smokers. External pressure can come from developed countries, TTCs, and international agencies. The basic structure of this conflict is similar to that presented in our other analyses. The tobacco industry is well organized and highly supportive, and is experienced at recruiting allies, and skillful at defining debates in terms that promote outcomes favorable to tobacco.
Table 6: Stakeholder Analysis of Intra-Government Incentive Conflicts

<table>
<thead>
<tr>
<th>Actor Name</th>
<th>Position on Tobacco</th>
<th>Power</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philip Morris International</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>British-American Tobacco</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>Japan Tobacco International/ RJ Reynolds</td>
<td>High Support</td>
<td>High</td>
<td>Transnat’l Tobacco Co.</td>
</tr>
<tr>
<td>Governments of countries where TTCs are based (USA, UK, Japan)</td>
<td>High Support</td>
<td>High</td>
<td>National Government</td>
</tr>
<tr>
<td>National Economic Authorities</td>
<td>High Support</td>
<td>Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>Tobacco Distributors and Retailers</td>
<td>High Support</td>
<td>High</td>
<td>Firms Of All Sizes</td>
</tr>
<tr>
<td>Tobacco Farmers</td>
<td>High Support</td>
<td>Medium</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Smokers</td>
<td>High Support</td>
<td>High</td>
<td>Individuals</td>
</tr>
<tr>
<td>Non-Smokers (especially women and the young)</td>
<td>Neutral to Low Opposition</td>
<td>Not Mobilized</td>
<td>Individuals</td>
</tr>
<tr>
<td>Local Health NGOs</td>
<td>High Opposition</td>
<td>Not Mobilized to Low</td>
<td>NGOs</td>
</tr>
<tr>
<td>Physicians and other medical professionals</td>
<td>Medium to High Opposition</td>
<td>Not Mobilized</td>
<td>Individuals and Medical Associations</td>
</tr>
<tr>
<td>National Health Authorities</td>
<td>High Opposition</td>
<td>Not Mobilized to Medium</td>
<td>National Government</td>
</tr>
<tr>
<td>World Health Organization</td>
<td>High Opposition</td>
<td>Medium</td>
<td>Multilateral Agency</td>
</tr>
<tr>
<td>The World Bank</td>
<td>High Opposition</td>
<td>High</td>
<td>Multilateral Agency</td>
</tr>
</tbody>
</table>
This review of the political economy of tobacco control in low- and middle-income countries suggests several conclusions for policymakers and the tobacco control community. We begin by presenting general themes and then turn to specific conclusions for each of three audiences: policymakers and coalition builders at the country level, policymakers and coalition builders at the global level, and researchers.

In general, this report suggests that the tobacco industry is better organized, better funded, and more experienced than the control advocates in low- and middle-income countries. Yet in spite of the TTCs’ overwhelming power, many advances in tobacco control policy have been achieved, especially in developed countries. Although we did not review the tobacco control experiences in developed countries, policymakers and advocates have had successes in the past decade that would have likely seemed unimaginable in the 1980s or earlier. In 1998 46 states and the four largest tobacco companies in the US reached the sweeping Master Settlement Agreement, in 2005 Italy banned smoking in virtually all indoor public spaces, and in 2009 the US Food and Drug Agency was granted authority to regulate tobacco, ending more than a century of exceptional treatment for the product. In these examples, policymakers and activists have countered the industry’s political influence by publicizing the dangers associated with tobacco use and building coalitions to advocate for higher taxes, advertising restrictions, and increased regulation, among other curbs. Control success in developed countries demonstrates that TTCs’ influence can be overcome even where the industry is thoroughly entrenched.

Low- and middle-income countries with high rates of tobacco use are likely to face many of the same obstacles as have been overcome in some developed countries. Recent scholarship based on industry documents made public by the MSA has documented many of the approaches TTCs have used to develop and dominate markets in Asia, Africa, and Latin America. In many instances their actions have followed patterns established in rich countries, including the creation of scientific controversies to confuse the medical and policymaking debates surrounding tobacco. Also, carefully crafted publicity campaigns and meticulous market research have helped TTCs build positive images and stoke demand for their brands. The industry has been successful in creating a series of public perceptions about smoking tobacco that influence non-smoking potential customers as well as smokers, farmers, business owners, national governments, and international authorities. Primarily, the industry has relied on its economic clout, political connections, and marketing skills to deliver its messages and recruit allies. The imbalance between the economic power of tobacco and the relative weakness of public health defines many of the larger themes in this analysis and highlights the importance of effectively communicating accurate information about tobacco’s true and full costs. The relative disorganization of tobacco control advocates points to the need for coalition building and sustained cooperation.

While a large part of the power of TTCs derives from their ability to shape public perceptions of tobacco and a network of economically vested allies, policymakers and tobacco control advocates derive their leverage significantly from the ability to publicize
the harms of tobacco use and to build coalitions. The experience from Thailand and from
the US shows that TTCs’ influence can be blunted before they gain access to a market or
afterward, even when they are deeply engaged in the economy. Logic and experience both
suggest that there is less opposition to establishing tobacco control measures either before
TTCs enter a market or when tobacco consumption rates are low and when the economic
importance of the product is low. The growing epidemic in low- and middle-income
countries underscores the need to publicize the dangers of tobacco and mobilize health
advocates and non-smokers. Delays in this task translate to further advantages for the
industry: in money as its sales increase, in influence as it grows in economic importance in
more places, and in addiction as more smokers become dependent on nicotine.

Some medical and public health experts have approached tobacco as if it could be
addressed by the usual set of technical tools. But tobacco control is complicated by the
powerful economic forces created by the production and sale of cigarettes. In many
LMICs, the slow progress toward control in some areas and the complete failure in others
testifies to the gravity of this misunderstanding. Supplementary strategies are essential,
such as litigation as used in the United States, and broad coalitions are fundamental to
generating the political power to establish and enforce anti-tobacco regulations.

Particularly at the national and sub-national levels, political economy analyses hold
potential to guide the design of political strategies required to control tobacco; such studies
should be pursued. These analyses can identify potential allies in tobacco control,
illuminate opposing forces, and suggest actions that can reduce tobacco use.

FOR POLICYMAKERS AND COALITION BUILDERS AT THE COUNTRY LEVEL

At the country level, our review suggests that policymakers and policy advocates should
pursue both supply-side and demand-side interventions. On the supply side, it is important
to restrict tobacco by tightly regulating its sale, which requires anti-smuggling measures as
well. The past strategy of establishing trade barriers is politically and legally complicated
by rapid globalization, the growing importance of international commerce, and the
precedent of WTO rulings, all of which favor free trade. Opponents of these supply-side
measures are likely to include groups that benefit from the tobacco trade, TTCs,
distributors, and retailers, plus industries that benefit from related spending, as on
consultants and lobbyists.

On the demand side, effective interventions include high tobacco taxes, graphic warning
labels, ingredient disclosure requirements, spatial restrictions on smoking, and advertising
and sponsorship bans. Politically, these measures are likely to be opposed by an even
wider set of actors than the supply-side interventions. Joining the opponents mentioned
above will be sports teams and others sponsored by tobacco companies, advertising
agencies and media groups, restaurant and bar owners, and smokers themselves.

In low- and middle-income countries, the economic power of tobacco—once established—
may be able to contain control efforts for many years, as happened for the first eight
decades of the twentieth century in rich countries. The imbalance between tobacco’s economic strength and the typically low political power of public health authorities highlights the importance effective coalition building and public health awareness campaigns, and the advantages of taking action before TTCs enter a market, if possible. Pre-emptive legislation to define tax policies, spatial restrictions, and broad product regulatory structures should be undertaken as early as possible in low- and middle-income countries.

Control advocates have some advantages over the forces promoting tobacco. Chief among these is the fact that tobacco use is harmful to health. Attempts by TTCs to construct a scientific controversy can be addressed with independent research and by publicizing evidence of duplicitous TTC behavior. Disseminating accurate information about the risks of tobacco can help prevent non-smokers from starting, encourage smokers to quit, and motivate health professionals and others to take joint action.

FOR POLICYMAKERS AND COALITION BUILDERS AT THE GLOBAL LEVEL

At the global level great progress has been made in establishing the FCTC, and our review suggests two avenues for future action. First, there is the possibility of litigating at the international level—at the WTO, for instance—to hold TTCs accountable for smuggled cigarettes. This would require the cooperation of one or more plaintiff countries, and may require new international trade laws. TTCs and supportive governments have thus far frustrated such attempts, but there may be a new opportunity with more documentation of TTCs’ routine involvement in smuggling available from the MSA repositories.

Second, the evidence we reviewed shows the benefits of collaboration. Policymakers and policy advocates at the global level should be encouraged to forge alliances whenever possible. Those working at the global level have opportunities to connect control advocates working at the national or local levels. Facilitating meetings and conveying helpful evidence can guide practice and allow control advocates to organize themselves. Assisting these advocates with fundraising and research projects has the potential for high impact. At the global level, cooperation between international and bilateral agencies is also essential to supporting comprehensive tobacco control policies in low- and middle-income countries.

At the global level, we believe that the politics of tobacco control are likely to be contested through efforts to change or enforce the FCTC. To gain wide support for the Convention, advocates were forced to weaken some of its provisions at the request of rich country governments that have been closely aligned with TTCs in the past. Some important future steps include strengthening the FCTC’s language to more closely match the best control policies, for instance as articulated in the MPower Report. Also at the global level, advocates can attempt to hold countries responsible for the commitments they have made under the current FCTC. Publicity campaigns can be used to reward countries making progress and pressure others that have not upheld their pledges.
FOR RESEARCHERS AT THE COUNTRY OR GLOBAL LEVEL

In recent years researchers have done much to reveal how the tobacco industry operates, to document its unethical practices, and to expose its overtures to governments and the control community. The documents available as a result of the MSA have been an exceptionally rich source of inside information and promise to yield additional insights for years to come.

In many of the papers we reviewed, researchers recognized the complexities of tobacco control by citing economic and political factors to explain why tobacco is hard to control. Some invoked the concept of political economy as a useful analytic framework. We agree with this assessment, but our findings suggest that most researchers of tobacco control have yet to take advantage of political economy tools. The technique of stakeholder analysis employed in the present paper is only one of many political economy approaches that could be applied. Other potentially fruitful approaches include political mapping and studying the incentives and relationships that bind actors together. At both the global and country levels there is an urgent need to deepen analyses. Sound historical descriptions are often an excellent starting point, and these can be incorporated into political economy frameworks to inform the design of creative and effective control strategies.

Researchers at the global level have an opportunity to develop simple and powerful political economy techniques that can help LMIC policymakers design and implement politically effective control strategies. These techniques can also help NGOs identify and recruit allies from government and civil society. Significant contributions are also possible through building links with country-level researchers, which facilitates access to evidence (usually better at the country level) and access to resources (often more plentiful at the global level).

Country-level researchers have many opportunities to encourage tobacco control. Documenting tobacco’s impact nationally can be effective in mobilizing support. Potential analyses include monitoring indoor air quality, assessing smoking among children, and publicizing tobacco-related morbidity and mortality. At the country level researchers are well positioned to analyze the national politics of tobacco control and develop detailed strategies for building support and forming coalitions. In general, the specificity of these studies requires intimate knowledge of national culture, politics, and history. Researchers at the country level are often better equipped to understand and study these problems than are outsiders. Local knowledge of the players involved can also suggest alliances that might not otherwise appear possible.
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Knight, J. and S. Chapman (2004c). "'A phony way to show sincerity, as we all well know': tobacco industry lobbying against tobacco control in Hong Kong." Tob Control 13(suppl_2): ii13-21.


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ANNEX I – A DIAGNOSTIC FRAMEWORK

To assist policymakers and other strategists in low- and middle-income countries we designed this diagnostic framework as a straightforward means of identifying issues of likely importance in tobacco control under different national scenarios of consumption and production. We begin by briefly reviewing previous schemes that have been used to classify countries with respect to tobacco and then present our own system.

Existing frameworks: MPOWER

WHO’s MPOWER Report classifies countries by WHO region—primarily a geographic designation. The 27 countries with the highest number of smokers are also grouped together regardless of region and documented in greater detail than other countries. Individually, countries are characterized by their regulatory frameworks: taxation, media in which advertising is permitted, package labeling requirements, spaces in which smoking is restricted, treatments for tobacco dependence, the existence of government control agencies and the number of FTEs assigned to them. Each country is also described by smoking characteristics, including prevalence and frequency of smoking by gender and male and female youth smoking rates by gender.

Organization by WHO region is useful for bi- or multi-lateral entities that use similar designations and is intuitive for researchers seeking data. However, this classification does not identify common regional characteristics and is does not yield special insights at the national level for understanding how tobacco can be controlled. This system does not allow for thematic groupings and countries are not alerted to the primary issues they face. Also missing are key characteristics including whether the market is open or closed, if there is a national monopoly, whether the country is a TTC target, and the importance of tobacco to the national economy.

The framework of the MPOWER report is based on a 100-point control scale developed by Luk Joossens with advice from the World Bank, which develops six key policy dimensions for assessing national progress (Joossens and Raw 2006). As we observed in Section III, these measures are useful for describing country progress and may help build political pressure for greater control efforts, as intended. But these systems do not speak to the challenges countries face in actually implementing policies. There is no focus on the obstacles to implementation and no analysis of the political economy forces that so tightly contest tobacco control.
Existing frameworks: Abedian

Iraj Abedian has proposed situating the tobacco control policy discussion within a framework of five production categories. These are:

1. The country consumes tobacco but does not produce it and is reliant on imports
2. The country produces some but consumes more; it is a net importer
3. The country produces what it consumes exactly
4. The country produces more than it consumes; it is a net exporter
5. The country only produces and does not consume tobacco; it exports only.

As Abedian observes, the difficulty of control rises in order of 1 to 5 because the cases represent sequentially greater national production and thus increasing levels of entanglement in national economic systems. Abedian proposes to weight various supply- and demand-side tobacco control policies according to a consumption function that he defines to include consumption, price, disposable income, taste, information, and product type variables, plus a term for all other factors (Abedian 1998).

This is a very helpful theoretical framework that offers important insights into the difficulties faced by governments seeking to maximize tax revenues while simultaneously attempting to limit consumption because of the negative consequences of the product. However, this is primarily a technical model designed to optimize the policy mix once policy objectives are defined. The utility of this model in policymaking is constrained by the political considerations that hamper most technical policy suggestions.

Existing frameworks: Lopez, Collishaw, and Piha

Lopez et al. propose a model based on four epidemic stages. These stages are characterized by changes in consumption, prevalence, and mortality. In stage 1, the beginning of the epidemic, male smoking is below 15% and female smoking is below 10%, and is often below 5%. In stage 2, smoking among men peaks between 50% and 80%; the proportion of former smokers remains low. This stage can unfold over decades and female smoking rates generally lag those for men by 10–20 years. In Stage 3, male smoking begins declining to around 40%, the proportion of former smokers rise, and female smoking continues to increase as it follows the pattern set by male smoking. In stage 4, male smoking declines, as does female smoking with a lag. For both genders, mortality continues to rise initially as the consequences of peak rates in past years become evident (Lopez, Collishaw et al. 1994). The progression of each stage is shown in the authors’ figure reproduced below:
We believe that this model can be used for classifying countries based on their epidemic stage, with the recognition that some updating and adjustment may be necessary because of changes in TTC tactics (Stillman, Hoang et al. 2008). This health-focused model serves as an appropriate companion to Abedian’s economic framework.

**Our Framework**

Our framework rests on the principle that tobacco’s most important constituent issues are its economic power and its negative health consequences. In Figure 2, below, we illustrate the forces that promote tobacco along the axes of production and consumption. Importantly, government tax revenues increase with rises in production and with rises in consumption. Because the negative health consequences do not occur for many years after the commencement of smoking, many governments have shortsightedly viewed tobacco very favorably in light of its immediate economic benefits.

In Figure 3, below, we plot production and consumption data obtained from the USDA’s commodity database. All countries for which consumption and production were available in metric tons were included. Data were plotted for the most recent complete year, usually 2004 or 2005, but in no case older than 2000. This analysis of shows that almost all countries cluster along the 45 degree line of roughly equal production and consumption. This suggests that the tobacco industry strategy is to become local, building ties and
insinuating itself to the maximum possible extent in the national economic and social fabric. The success of this strategy is one of the major obstacles to control.
National Economic and Health Dimensions of Tobacco

Greater economic power...
...promoting a larger problem

Government Tax Revenues from both production and consumption
The political-economic difficulty of control rises with tobacco’s importance

Production
- Leaf production
- Cigarette manufacturing
- Tobacco exports

Consumption
- Male smoking prevalence
- Female smoking prevalence
- Youth smoking prevalence
ANNEX II – LITERATURE SEARCH STRATEGY

To investigate the political economy of tobacco control in low- and middle-income countries we designed a search strategy to collect published and unpublished literature. Published literature was sought using four databases, the most important of which was PubMed. Secondarily, the EconLit, PsycInfo, and AGRICOLA databases were used to capture additional publications from the international trade, economics, behavioral science, and agriculture literatures. In PubMed a targeted search for “tobacco” and the phrase “political economy” identified just 12 publications, of which only five addressed developing countries. These terms captured very few papers in the other three databases, as well. These preliminary efforts suggested that the literature we intended to review has yet to be written, for the most part.

Following these efforts a second search was made to identify the broadest set of publications even potentially germane to the political economy of tobacco in low- and middle-income countries. PubMed was used and the terms were refined to capture as many publications in English as possible on the subject of tobacco in developing countries. Because PubMed is a database of health and medical publications, further limits such as publication date or other terms, e.g. “control,” were not used. A total of 2021 papers were identified through this search.15 These 2021 publications were assumed to be a reasonably complete representation of evidence in PubMed that could potentially be used as inputs for a political economy analysis of tobacco control in low- and middle-income countries. During subsequent reviews of these papers a snowball strategy was used to find related publications not captured in the initial results. AGRICOLA, PsycInfo, and EconLit were also used with broader terms to capture more papers.

Our search for unpublished material followed a similar pattern. To identify relevant gray literature we began by generating a list of tobacco control experts in consultation with World Bank staff members working on this project. Represented institutions included the World Bank, WHO, PAHO, the American Cancer Society, and several academic centers. An initial total of twelve people were identified, each of whom was contacted with a description of this project and a request for citations or copies of reports. Additional experts were identified through these initial contacts and further inquiries were made. In most cases, only reports from major international agencies were identified through these efforts, such as the World Bank’s *Curbing the Epidemic* (1999), WHO’s *MPOWER Package* (2008), and the American Cancer Society’s *Tobacco Atlas* (2006, 2009).

These results were supplemented with Internet research. Websites of important academic centers and international agencies were reviewed. The search engines Google and Google Scholar were used with terms such as “tobacco” or “tobacco control” combined with

15 The PubMed search was (("tobacco"[MeSH Terms] OR "tobacco"[All Fields]) AND ("developing countries"[MeSH Terms] OR ("developing"[All Fields] AND "countries"[All Fields]) OR "developing countries"[All Fields])) OR (("tobacco"[MeSH Terms] OR "tobacco"[All Fields]) AND international[All Fields]) AND English[lang]
“political economy,” or “political strategies,” or “political mapping,” or “implementation problems.” These terms and similar variants were used without quotes. The use of terms to limit the search to low- and middle-income countries proved unreliable, although continental terms “Africa” and “Asia” were sometimes helpful. The results of these searches were then reviewed to cover at least the past decade, and typically the past two decades. A snowball strategy was used to further pursue authors and institutions appearing in the initial results.

All of the citations we obtained via these methods were then reviewed. A total of 441 papers were deemed relevant to our inquiry and subsequently obtained.
ANNEX III – REFERENCES COLLECTED


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La gestión de los hospitales en América Latina

Resultados de una encuesta realizada en cuatro países

Richard J. Bogue, Claude H. Hall, Jr. y Gerard M. La Forgia

Junio de 2007