I. Introduction

Since the mid-2000s, economists in both academia and development multilaterals have drawn increasing attention to the middle-income (MI) trap, especially in Southeast Asia and Latin America.¹ Their writings have been valuable in identifying and defining the trap, in exploring its proximate sources (especially productivity slowdowns), in recommending policy remedies (such as improvements in human capital), and in highlighting the importance of broad political coalitions to implement such remedies. Why then—if experts and leaders are aware of the weaknesses of their economies, if they can identify the policies required to improve productivity, and if they recognize the need for broad support and engagement—has it been so difficult to move forward? In probing this question, we find that the existing analyses simply do not explain precisely why there is a trap. We propose that one answer to the puzzle is to get at how today’s middle-income economies are different from their predecessors. And yet, as Shekhar Aiyar and colleagues conclude in their survey of the debate, “there is virtually no theory about why and how middle-income economies may be

¹The first reference to the concept was in Gill and Kharas 2007, 17–18. Subsequent papers, especially by World Bank and International Monetary Fund economists, focused on defining the trap (Agenor and Canuto 2012; World Bank 2012a; Felipe, Abdon, and Kumar 2012; Eichengreen, Park, and Shin 2013). Regional specialists quickly picked up on the idea, first in Asia (for example, Yusuf and Nabeishima 2009; Ohno 2009) and then in Latin America (for example, Paus 2014; Foxley and Sossdorf 2011) and in Turkey (Yeldan et al. 2013). On differences in export patterns in MI and HI countries, see also Imbs and Wacziarg 2003. For skeptical views, see Pritchett and Summers 2014; and Bulman, Eden, and Nguyen 2014.
different.”2 In our view, the absence of such a theory reflects the neglect of the political economy bases of the middle-income trap. To address this considerable gap, we argue for a deeper appreciation of the challenges inherent in upgrading3 policies, of the institutions required to address these challenges, and, most critically, of the political obstacles to developing such institutions.

Among those writing about the middle-income trap, most agree on defining it as an extensive period of middle-income limbo, especially in contrast to earlier developers. Jesus Felipe, Arnelyn Abdon, and Ustav Kumar label countries stuck in the MI trap as those remaining in the income range of $2,000–$7,500 for over twenty-eight years or within a range of $7,500–$11,500 for more than fourteen years, or in middle income for a total of forty-two years (the median number of years earlier developers spent in middle income).4 We use these basic criteria to identify countries in the MI trap. Others find growth slowdowns since 1960 to be more frequent in middle-income than in low- or high-income countries.5 Of 101 middle-income economies in 1960, only 13 had graduated to high income (HI) by 2008.6 Today’s middle-income countries are caught in a developmental nutcracker, “unable to compete with low-income (LI), low-wage economies in manufactured exports and unable to compete with advanced economies in high-skill innovations.”7 There is also agreement that the trap reflects a slowdown in productivity growth as economies exhaust the gains from moving into middle-income status.8

The emphasis on the need for productivity growth translates into broad agreement among economists on many of the policies needed to get out of the MI trap. These include more and better education (especially higher and technical), greater savings and better investment, better infrastructure, and more innovation and R and D.9 Views diverge on whether targeted industrial policies should be added to the mix,10 but

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2 Aiyar et al. 2013.
3 By “upgrading” we refer to the production of goods and services with increasing value added, domestic linkages, and sustained productivity growth.
4 Felipe, Abdon, and Kumar 2012, 3.
5 Aiyar et al. 2013. Gill and Kharas 2015 discuss these and other definitions in their review of a decade of work on the MI trap.
6 World Bank 2012a, 12.
7 Kharas and Kohli 2011, 282.
8 “[A] drop in TFP growth . . . (accounts) . . . for about 85 percent, or 3 percentage points, of the absolute reduction in the growth rate of GDP per capita”; Agenor and Canuto 2012, 3–4, citing Eichengreen, Park, and Shin 2011. See also Aiyar et al. 2013, 7–8.
9 For authors emphasizing one or more of these policy solutions, see Agenor and Canuto 2012; Lee 2014; Lin and Treichel 2012; Aiyar et al. 2013; Paus 2014; and Eichengreen, Park, and Shin 2013. Some authors bring in other issues, including weak property rights, rigid labor regulation (Aiyar et al. 2013, 16–17), corruption, and shallow financial systems (Gill and Kharas 2007).
10 Paus 2014.
this debate does not detract from the consensus on the list of policies above. Nor is there disagreement on the need for institutional strengthening, especially better administrative capacity to deliver public services and economic regulation.

Most studies of the MI trap—often drawing on the experiences of latecomers such as Finland, Ireland, Singapore, and South Korea—recognize the need for some minimal political requisites for enacting necessary policies, although that is rarely their primary focus. These requisites include political will, long time horizons on the part of political leaders, broad societal consensus, business–government collaboration, and some degree of inclusive politics.

Beyond these areas of agreement, the scholarship on the MI trap suffers from serious gaps. One is the lack of systematic attention to the difficulties inherent in the prescribed policies. Measures designed to improve local technological capacities, such as vocational training, R and D, or standards and testing, are in crucial ways much more challenging than many of the earlier investment-driven growth policies focused largely on the accumulation and mobilization of capital that helped countries move out of low-income to middle-income status. Subsequent upgrading of policies to get beyond MI and move closer to technological frontiers takes more time to implement, requires the participation of more actors (for example, teachers or trainers), and demands more technical and site-specific information. These features, in other words, necessitate more sophisticated institutional arrangements. In addition, as we discuss below, graduating to HI is more difficult in the twenty-first century than it was in the past century.

Most central to this article is the lack of scholarly attention to institutional origins. Few ask what would motivate key actors to coordinate. Why would self-interested political and economic elites expend scarce resources to construct the complex institutions required to implement initiatives in areas such as technical education and R and D? Which groups are most likely to take the lead in demanding upgrading and related institutions? Who are the likely coalition partners? That is, are politics—reflected in relations among key societal actors—in MI countries in fact less amenable to building the consensus economists advocate than were politics in other stages or trajectories of development?

Our answer to this last question is affirmative. The conditions that facilitated or accompanied the earlier ascension to MI status, such as

11 Foxley and Sossdorf 2011; Devlin and Morguillansky 2011.
12 Fletcher and Panther 2015.
13 Aiyar et al. 2013, 32.
14 Hanson 2014. For a review, see Doner 2009.
foreign investment, low-skilled and low-paid work, inequality, and informality, over time generated cleavages that impeded subsequent upgrading policies and building the institutions necessary to implement them. What makes exiting the trap difficult is the institution-intensive nature of the required policy solutions combined with weak societal demand for such institutions.

The main political obstacle to institution building is the fragmentation of social groups and the resulting absence of strong upgrading coalitions. Growth trajectories on the way to MI status fractured the groups, especially business and labor, which are the core potential constituencies for a coalition that could take the big leap. Broadly put, big business is split between foreign and domestic firms, labor is divided between formal and informal sectors, and societies overall are riven by high inequality. These cleavages splinter interests and make coalition building more difficult.

These arguments reflect an expansion of our comparative lens beyond the small number of developmental states that successfully made the leap from middle-income to high-income status—especially countries like Finland, Korea, Singapore, and Taiwan—to those countries that have not made the leap. Much of the scholarship on the successes concentrated on the institutions of developmental states such as their professionalized, Weberian bureaucracies, “pilot” agencies, and close business-government collaboration. But this scholarship is limited by the range of institutions it addresses and, most critically, by a neglect of coalitional underpinnings.15 Focusing on the countries that have not made the leap alerts us to the underlying structural obstacles to forming the broad coalitions needed for institution building. As such, the implications of our arguments go beyond the study of the MI trap to address the shortcomings of what has become an apolitical institutionalist hegemony in development studies and practice.16

The article proceeds as follows: Section II examines the significant institutional challenges facing MI countries through the examples of human capital and investment in R and D. Section III turns to the sociopolitical obstacles to addressing these and other institutional challenges by exploring social cleavages, especially those created by inequality, foreign direct investment (FDI), and informality. Section IV illustrates the fractious interests of groups in MI politics in the crucial case of education reform. Section V then broadens the comparative analysis and includes China as well. Section VI concludes with some practical and theoretical

15 But see Kohli 2004.
16 For a summary, see Rodrik 2007.
implications. Most of the empirical material focuses on comparisons between MI and HI countries in the twenty-first century. Where data are available, we include some comparisons with past experiences of earlier graduates to HI, especially to show that earlier graduates did not face the same challenges and cleavages as those facing today’s MI countries.

II. THE INSTITUTIONAL CHALLENGES OF TODAY’S MIDDLE-INCOME TRAP

The upgrading reforms required to move out of middle-income status are difficult and complex, especially compared to reforms that, while generating real distributional tensions, can be implemented by fiat by small groups of insulated technocrats (for example, devaluation, raising interest rates, or trade liberalization). Because of their complexities, implementing upgrading reforms requires institutions to coordinate, to monitor and reconcile the interests of multiple actors, and to help provide specialized information. Such institutions operate at multiple levels, ranging from overall sectoral coordinating institutes and public-private consultative councils, to judicial offices for effective contract enforcement and patent protection, to agencies specializing in areas such as innovation financing, testing and standards, R and D promotion, and vocational training. Creating such institutions is difficult because they require both (horizontal) coordination among state agencies, among firms, and between public and private actors (as in Peter Evans’s concept of embedded autonomy), and (vertical) coordination of numerous providers, such as highly trained researchers, judges, teachers, curriculum developers, and test engineers, each of whom plays important roles in long implementation chains.

This section focuses on two such institution-intensive reform areas essential to increasing productivity: education (human capital) and investment in R and D. These are, for good reason, usually at the top of the policy priorities identified by economic studies of the MI trap. The scatterplots of Figures 1 and 2 show both the wide gap between HI and MI countries and that large MI countries fall below the levels expected at their income. Most important, these policy areas also illustrate the huge institutional hurdles facing countries seeking to exit MI limbo. Our goal in this section is not to attempt to identify a short list of reforms that

17 Evans 1995.
18 Furthermore, among characteristics correlated with income (such as financial development or governance indicators on rule of law), education and R and D-driven innovation more clearly precede productivity growth, both logically and empirically. See Hanusheck and Woessmann 2012.
might solve the MI trap (other scholars have recommended a host of policy prescriptions), but rather to show the major institution building necessary to get out of it. For brevity, we concentrate on education and R and D, but the framework applies to a range of other policy areas, including legal and financial systems, which are similarly institution intensive.

Moreover, the challenges are greater now than they were in the twentieth century, when countries graduated to HI with lower levels of education and R and D. In education, for example, the average years of school in the adult population was 8 for countries that graduated to HI in the 1960s and 1970s (Europe, Anglo settler countries, and Japan), and 8.4 for countries that graduated in the 1980s and 1990s. The average in our nine large countries in MI limbo was already 8.8 years by 2010, while the average for all advanced countries in 2010 had risen to 11 years.¹⁹

The empirical analysis concentrates on large upper-MI countries of Latin America (Brazil, Mexico, Argentina, Colombia, and Peru), Southeast Asia (Thailand and Malaysia), South Africa, and Turkey.²⁰ One reason for this is that the median time in MI status for these nine countries is sixty years and counting, well beyond the average noted in the introduction of forty-two years for earlier industrializers. Excluding China (considered below), these nine countries account for two-thirds of all the people living in MI countries.

Further, given extensive heterogeneity among the fifty-three countries listed as middle income in 2014, we think analyses of the dynamics of more homogeneous subsets of MI countries is likely to yield better insights. Among the subsets, we exclude smaller MI countries (under twenty million inhabitants) that depend more on their larger regional trading partners and have advantages, as discussed below, in overcoming the divisions of MI politics. Another subset, postsocialist transition economies, entered MI with much stronger educational institutions and lower inequality and informality, and the institutional challenges they face are related more to transitions to capitalism. Last, MI countries heavily dependent on oil exports face challenges of overcoming the distinctive perils of the resource curse. Enormous heterogeneity not-

¹⁹ For these calculations, we rely on Felipe, Abdon, and Kumar 2012, who estimate when advanced countries made the transition to HI, and on Barro and Lee 2010 for education data. See Doner and Schneider 2016, Tables 5 and 6.

²⁰ These nine countries comprise all the larger middle-income countries as drawn from the full list of fifty-three MI countries; see Doner and Schneider 2016, Table S4. For 2014, the World Bank defined upper middle income as $4,125–$12,746 GNI per capita. At http://data.worldbank.org/about/country-and-lending-groups#Upper_middle_income, accessed October 6, 2014.
withstanding, our quantitative analysis often includes all MI countries, and many of our arguments could travel, in revised form, to other MI countries. Of course, even among our nine large MI countries there are major differences, to which we return in Section V.

**Education**

Despite steady progress over recent decades in increasing access and spending, educational achievement in MI countries continues to lag. Conversely, countries where education levels have historically exceeded the norm for their income levels have been some of the fastest growing in East Asia and the ones most likely to escape the MI trap.\(^{21}\) Several measures give a clear picture of gaps in educational quality and performance: Program for International Student Assessment (PISA) scores, proportion of the labor force with tertiary education, and number of technical workers in R and D activities (see Table 1). The gaps show both the problem of low human capital and the enormous challenge to overcoming the MI trap.\(^{22}\)

For PISA scores, a forty-point difference is equivalent to about one year of education, which puts fifteen-year-olds in middle-income countries more than two years behind Organization of Economic Cooperation and Development (OECD) countries and more than three years behind HI East Asia. The results reflect cumulative learning, so raising scores requires improving education quality across all levels of primary and secondary education. Differences in the stock of higher education are again stark, with MI countries at less than 60 percent of the levels of HI East Asia and OECD countries. Figure 1 provides another representation of the steep institutional challenge facing large MI countries. The slope conveys the strong relationship between education and income, but also shows that educational attainment in large MI countries is below what would be expected for their income levels.

Stocks at highest levels of education—technical personnel in R and D—show the greatest differences (Table 1): MI countries have only about a quarter of the levels of HI Asia and the OECD. These numbers are, of course, correlated with investment in R and D (see below), but the numbers in Table 1 also capture the important point that much investment in R and D goes to paying scientists, engineers, and technicians, so R and D investment cannot be increased overnight. The educational

\(^{21}\) Hanushek and Woessmann 2012.

\(^{22}\) In addition, the proportion of vocational enrollment in secondary education is only 10 percent in large middle-income countries, contrasted with 11 percent in HI Asia (15 percent without Hong Kong), and 25 percent in HI income OECD. Doner and Schneider 2016, Table 1.
## Table 1

### Human Capital in MI and HI Countries

<table>
<thead>
<tr>
<th></th>
<th>Large Middle-Income Countries&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Recent High-Income East Asia&lt;sup&gt;b&lt;/sup&gt;</th>
<th>High-Income OECD&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average PISA scores (2012)</td>
<td>412</td>
<td>547</td>
<td>503</td>
</tr>
<tr>
<td>Labor force with tertiary education (2009–12, percentage)</td>
<td>19</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>R and D personnel (2009–13, per thousand in the labor force)</td>
<td>3</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

**Source:** Doner and Schneider 2016, Table S1.

<sup>a</sup> Large MI countries include Argentina, Brazil, Colombia, Malaysia, Mexico, Peru, South Africa, Thailand, and Turkey.

<sup>b</sup> Recent HI countries in Asia include Hong Kong, Korea, Singapore, and Taiwan.

<sup>c</sup> HI OECD countries include all OECD countries except Chile, Mexico, and Turkey.

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### Figure 1

**PISA Scores and GDP per Capita**

**Sources:** OECD 2012 and World Bank. For a graph including these outliers, see Doner and Schneider 2016, Figure S1.

<sup>a</sup> The figure includes all countries that participated in PISA except Shanghai (only one city) and Qatar (high-income petro state).
The system must first produce the personnel that companies, agencies, and institutes can hire.

**Research and Development**

Middle-income (MI) countries invest only a third or less of what high-income (HI) countries invest in R and D (see Table 2). This is one of the differences most clearly connected to the prior drivers of growth—especially low-wage, labor-intensive manufacturing, multinational corporation (MNC) dominance of manufacturing (MNCs concentrate R and D at home), and raw materials exports—that helped bring countries out of low income but did not promote investment in R and D. R and D does of course tend to increase with development, but Figure 2 also reveals two crucial aspects of the MI trap. First, most large MI countries invest below the expected amount of R and D for their income levels. And, second, for the fitted curve, MI countries are at a point in development where the curve slopes more sharply upward, which conveys the increasing challenges they face.

The large educational and R and D gaps between HI and MI countries highlight the huge challenge of institution building facing the latter. Increasing, say, investment or exports can be promoted by policies such as tax exemptions that, while rewarding some and hurting others, can be implemented with the stroke of a pen. In contrast, training and employing more technical personnel requires (1) extensive horizontal coordination among private firms, research institutes, and universities to create the new positions and develop specialized curricula, as well as (2) massive vertical coordination among the thousands of teachers and students who will implement the new training and education programs. (Section IV returns to institutional challenges in education.) Both forms of coordination require large investments in a range of institutions that usually includes schools, vocational training institutions, universities, university-business collaborations, and some mix of research consortia or institutes, laws and court systems for intellectual property, agencies to promote R and D, and so forth.

Improved performance by MI countries in productivity-enhancing reforms and investments is more important today, when the bar for upgrading is higher than in the past. As we have seen, levels of education and R and D were much lower in HI countries in the twentieth century than they are currently. The goalposts have moved. Shifts in the tech-

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23 As with education, levels of R and D were lower at the time the first wave of countries became high income in the 1960s and 1970s. At the time of transition, average R and D as a percentage of GDP was 1.3 percent; see Doner and Schneider 2016, Table S6. These goalposts have moved, too, though on this dimension large MI countries are, unlike in the case of education levels, behind HI countries much earlier in the twentieth century.
## Table 2
### Investment in R and D in MI and HI Countries (Percentage of GDP) \(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Large Middle-Income Countries</th>
<th>Recent High-Income East Asia</th>
<th>High-Income OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>R and D (2009–12)</td>
<td>0.7</td>
<td>2.5 (3.1)(^b)</td>
<td>2.2</td>
</tr>
</tbody>
</table>

**Source:** Doner and Schneider 2016, Table S1.

\(^a\) For countries included, see Table 1.

\(^b\) Excluding Hong Kong.

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### Figure 2
#### R and D and GDP per Capita\(^a\)

\(^a\) For all income levels with available data, excluding high-income petro states (Kuwait, Oman, Saudi Arabia, and Trinidad and Tobago) and financial havens (Bermuda and Macau).
nological and managerial challenges facing today’s MI countries suggest that successful movement out of the MI trap in the twenty-first century will require industrial policies, institutional designs, and political configurations that are different from those adopted by earlier developers.24 Yet one component of past success—the development of broad coalitions in support of effective institutions—is as necessary as ever.

III. Disarticulation Politics: Obstacles to Forming Upgrading Coalitions

Making enormous institutional investments requires extraordinary collective action and coalition building. Indeed, Alejandro Foxley and Fernando Sossdorf set it as a top priority: “The most productive thing middle-income countries can do to accelerate their transition to advanced economies is to establish a bipartisan political consensus.”25 Yet the evolving political conditions in MI countries have become especially inauspicious for such consensus and coalition building. Our political analysis concentrates on the social cleavages—especially inequality, formal/informal workers, and foreign/domestic business—that impede the emergence of effective upgrading coalitions.26

We focus on coalitions of social groups for two main reasons.27 First is the centrality of coalitions to successful late industrialization and movement into high income.28 Such coalitions varied along several dimensions, such as their duration, the number of groups involved, and the role of the state in forging them. They range from the “marriage of iron and rye” (large landowners and heavy industry) in nineteenth-century Germany; to Japan’s postwar “corporatism without labor”;29 to Northeast Asia’s postwar “cohesive capitalist states,”30 also labeled “conservative coalitions”31 or “state corporatism,” in which authoritarian leaders prioritized rapid industrialization by working “closely with

24 For example, Harrison and Rodriguez-Clare 2010.
25 Foxley and Sossdorf 2011, 2.
26 Observers of MI countries have listed other political problems such as ethnic or religious conflict, corruption, drug trafficking, or political instability that also detract from consensus and institution building. Although often daunting, these problems are not, in our analysis, common across all nine large MI countries, nor are they directly linked to the trajectories these countries followed from LI to MI that resulted in the social disarticulation we focus on here.
27 Our focus on coalitions of broad social groups, including workers, business, and the middle class, contrasts with strictly political alliances among parties or factions. Our approach is similar to the conception of coalitions in Haggard and Kaufman 2008 and Huber and Stephens 2012, as well as in much of the literature on power resource theory and varieties of capitalism.
28 In addition, strong modernizing coalitions led by Vargas in Brazil, Atatürk in Turkey, and Cádiz in Mexico broke the power of traditional elites in the movement from low to middle income.
30 Waldner 1999.
industrialists”; to the more horizontal, “societal” corporatist arrangements, usually involving labor as well as business and the state, in the small states of northern Europe, and Ireland. Despite their variation, these arrangements served a common purpose: namely, they facilitated intertemporal bargains needed for investing in those upgrading-related investments that required extensive information, negotiation, monitoring, and short-term costs, but whose benefits would emerge only in the medium or long term.

Second, recent antidemocratic shifts in South Africa, Thailand, and Turkey notwithstanding, long-term developmental autocracies, such as those in Northeast Asia in the twentieth century, are ever less likely as elections have become routine in our nine cases of large MI countries. In more democratic settings, short political horizons for political incumbents weaken their incentives for long-term investments, thus, sustained political pressure from coalitions that support upgrading becomes especially important for keeping elected politicians on task. Even in cases where single parties or leaders were in power for more than a decade (as in Argentina, Brazil, Malaysia, South Africa, and Turkey), time horizons were still fairly short term. Moreover, these parties were largely populist, redistributive, and/or corrupt; in addition, they did not face strong upgrading coalitions. Malaysia is a partial exception to which we return in Section V.

Our core contention is that strong upgrading coalitions have not emerged in today’s MI countries. Owing to the ways these countries grew into MI status—by their reliance on various combinations of cheap labor, foreign investment, and commodity exports—the economic elites and workers in MI countries have different compositions, cleavages, and underlying interests than did those in the earlier industrializers. Indeed, we are aware of no existing scholarship on these countries arguing that such upgrading coalitions exist. We can only speculate about what such an upgrading coalition might look like in the future. The past experience of rich countries suggests that it might be cross-class among business and workers, as in Northern Europe, or more elitist and more exclusively among economic elites, as in East Asia. Our goal, though, is

32 Wade 1990, 295.
33 Katzenstein 1985; Ornston 2012.
34 This logic also applies to the growing number of what have become known as “electoral authoritarian” regimes; see Levitsky and Way 2010.
35 This section focuses largely on interests that, in our formulation, can be derived from a worker’s or a firm’s structural position in the economy. Where available, we also add in empirical evidence on expressed preferences.
not to recommend particular coalitions, but rather to examine the fissures that make any potential upgrading coalition less likely.\textsuperscript{36}

The fragmentation of social groups is both vertical (high inequality) and horizontal (within business and labor). Of course, business and labor are differentiated everywhere by size and sectoral, geographical, and other divisions. But fragmentation in MI countries is both deeper than in most other cases, and now more consequential. The fragmentation means that firms and workers in different parts of the economy have different strategies and therefore different interests regarding key upgrading reforms (and a range of other policies as well), especially education, as will be discussed in Section IV.

\textbf{INEQUALITY}

Inequality has risen higher and endured longer in today’s MI countries than in earlier industrializers (see Table 3). In Figure 3 (note the inverted scale on the y-axis), the line slopes upward and shows that the large MI countries are more unequal than would have been predicted from their income. Viewed historically, many MI countries have passed the levels of GDP per capita that OECD countries had earlier in the twentieth century, when their inequality was falling. Over the course of the twentieth century, for pretax Gini coefficients in ten OECD countries, inequality fell steadily from .48 in 1910 to .35 in 1980 (and then rose to .39 in 2000). By contrast, Gini coefficients for five MI countries rose to above .5 in 1930 and stayed at this very high level until 2000.\textsuperscript{37} After 2000 inequality fell in most of the nine large MI countries, though only slightly on average, from .5 to .48.\textsuperscript{38}

Most scholars would agree that inequality makes politics more discordant and fractious, thus discouraging the centripetal and consensual politics that Foxley and Sossdorf and others urge on MI countries.\textsuperscript{39} Beyond general contention, inequality also makes MI politics vulnerable to several kinds of political dysfunction, including elite capture, economic entrenchment, clientelism, and populism, all of which in various ways divert political attention and economic resources away from upgrading and work against the formation of upgrading coalitions.

Most simply, two-actor models of highly unequal societies start with the premise that these political economies have distinct dynamics

\textsuperscript{36} Although we do not deny the potential role of policy entrepreneurs and reformers, for example, Grindle 2004 and Kosack 2012, we stress interest-based positions as a necessary factor in the formation of reform coalitions.

\textsuperscript{37} Van Zanden et al. 2014, 206.

\textsuperscript{38} See Doner and Schneider 2016, Table S2.

\textsuperscript{39} Foxley and Sossdorf 2011.
Inequality in MI and HI Countries

<table>
<thead>
<tr>
<th>Large Middle-Income countries</th>
<th>Recent High-Income East Asia</th>
<th>High-Income OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gini coefficients (2005–13)</td>
<td>.49</td>
<td>.41 (.37)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.30</td>
</tr>
</tbody>
</table>

Source: Doner and Schneider 2016, Table S1.

* For countries included, see Table 1.

* Excluding Hong Kong.

Figure 3
Inequality and Income

Source: See Doner and Schneider 2016, Table S1.

* The figure includes all countries with available data.
because elites enjoy greater power and nonelites have less recourse for checking that power. In economic versions of such models, elites create extractive institutions to ensure their rents, even if these institutions slow growth for the economy as a whole. Although oversimplified, these models are useful in highlighting the pivotal role of domestic elite participation in potential upgrading coalitions and the ways in which elite privileges can discourage such engagement.

One obstacle to such participation involves a form of entrenchment in which longer periods in MI status allow large firms and elite social groups to consolidate their positions in the economy and the polity. The domestic firms—mostly huge, conglomerated, family-owned business groups—that grew large in the late twentieth century were concentrated in commodities (natural resources, basic metals, and other semiprocessed goods), regulated sectors (especially banking and utilities), natural oligopolies (such as cement and beer), and occasionally, low-tech manufacturing (having been boxed out of high-tech manufacturing by MNCs). They were already very large and powerful coming into the twenty-first century. In contrast to business groups in countries that escaped the MI trap, these concentrated business groups have had little to gain from pushing for policies that would help their economies break out of the trap. They are entrenched in their own traditional business strategies and in politics and wield power to maintain institutions favorable to their existing businesses.

Inequality also impedes upgrading policies and institutions through the more explicitly political mechanisms of clientelism and populism. Clientelism—exchanges of particularistic goods (patronage) between wealthy and poor or powerful and powerless—thrives under conditions of poverty and inequality. To the extent patronage runs through the public administration, it undermines bureaucratic capacity, encourages particularistic ties between state officials and private sector groups, and

40 Acemoğlu and Robinson 2006.
41 North 1990; Fletcher and Panther 2015.
42 Morck, Wolfenzon, and Yeung 2005.
43 None of Thailand’s twenty richest individuals and only two of its fifty richest were in manufacturing. At http://www.forbes.com/thailand-billionaires/list/#tab:overall, accessed June 18, 2015. For an overview of business groups, as well as detailed chapter studies on six of our nine large MI countries, see Colpan, Hikino, and Lincoln 2010. Turkey is a partial exception, in that more business groups had subsidiaries in manufacturing.
44 Nor, unlike firms in Taiwan and Korea, have they been under governmental pressure to do so. The more important difference for our purpose is that large firms in the “graduates” were in constant flux, diversification, and vertiginous growth, so they had less time to become entrenched in any set of activities and were open to entering new sectors and leaving old ones; see Amsden 1989.
45 For an egregious example, the Mexican billionaire Carlos Slim, see Elizondo 2011.
46 For a recent review, see Stokes et al. 2013.
diverts resources to unproductive spending. The overall result is that clientelism undercuts programmatic politics and thereby displaces upgrading goals from partisan and electoral politics. The phenomenon does, of course, also exist in LM countries, but the political effects in MI countries are more debilitating, as they fragment politics and reduce the possibility that upgrading coalitions will emerge.

Inequality also makes politics more prone to populism, understood here in economic terms as some form of personalistic leadership that addresses broad but unorganized discontent by undertaking unsustainable redistribution through mechanisms like price controls, consumption subsidies, inflation, and exchange rate overvaluation. Among large MI countries, such distortions have recently been especially marked in Argentina, Thailand, and Venezuela. Recent cases vary, but economic populism encourages short-term, ad hoc policy-making, antagonizes significant portions of business, and weakens rather than builds institutions. Moreover, at some point economic populism ends badly—in recession and crisis, which siphon off resources from policy priorities that could have been used to escape the MI trap. Populism, although not inevitable in MI countries, is more likely to occur there because it draws crucial support from the urban informal sector that grew large in the transition to MI status.

**INFORMALITY**

Following what is known as the “Lewis turning point,” earlier developers usually transited out of informality with the shift out of agriculture; urban workers quickly became formal workers, whose rising wages stimulated investments in skills as the supply of surplus labor was exhausted. Historical estimates are hard to come by, but scattered evidence suggests informality was much less of a factor for earlier industrializers as they transitioned to high income, in part because manufacturing accounted for a larger share of the economy than it does in today’s MI countries that are suffering premature deindustrialization. For European countries, the shadow economy was about 8 to 12 per-

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47 See Keefer 2013; Chambers 2005.
48 Slater 2013 writes about “the backbreaking inequality that makes populism so appealing” (p. 742). In Thailand, the Pongpiaćhit and Baker 2008 account of populism highlights the importance of a “weak and embattled” domestic capitalist class, a “small and politically marginal” formal working class, and a high percentage of the working class remaining in declining agriculture “or in the swelling urban informal sector” (p. 80). For Latin America, Oxhorn 1998 argues that “inequality and consequent heterogeneity of . . . social structures has provided a fertile plain for the emergence of populism . . . since the 1930s” (p. 222).
49 Lewis 1958.
50 Rodrik 2015.
cent in Germany in the late 1970s, 8 percent in Denmark in 1980, 3 to 6 percent in France in the late 1970s, 13 to 14 percent in Sweden in 1978, 10 to 27 percent in Spain in 1979–80, and 20 to 35 percent in Italy in 1979.\textsuperscript{51} The informal workforce in Korea was 7 percent in 1993.\textsuperscript{52}

Most MI countries have been waiting a long time for Lewis’s turning point and are instead characterized by a massive and relatively stable shift out of rural informality into \textit{urban informality}, sometimes abetted by inflows of migrant labor (see Table 4).\textsuperscript{53} The shadow economies of large MI countries are nearly double those of high-income countries. For a different measure, informal employment is even higher—44 percent—for our large MI countries.\textsuperscript{54} Informal workers are a heterogeneous lot, but the vast majority of them labor in precarious low-skill, low-wage, low-productivity employment.\textsuperscript{55}

These high levels of informality are especially striking for having persisted \textit{despite} growth and rising wages. In all nine large MI countries, the shadow economy actually increased from 1999 to 2007.\textsuperscript{56} Indeed, many of the sources economists identify as contributing to informality—excessive labor-market regulation, outsourcing and contract work, weak enforcement capacity, and premature deindustrialization—are not moving in directions that would reduce informality in MI countries.\textsuperscript{57} Further, high levels of informality are correlated empirically with high levels of inequality,\textsuperscript{58} which as noted remain stubbornly high in large MI countries.

The informal-formal distinction constitutes a crucial cleavage within

\textsuperscript{51} Schneider and Williams 2013, 75.
\textsuperscript{52} Rowley, Soo, and Kim 2011, 66. Using a somewhat different calculation, Cheng and Gereffi 1994, 206, find the size of the urban marginal class (which includes peddlers, street vendors, and a variety of personal service workers) was 10.2 percent of the total labor force in 1965 and increased slightly to 11.5 percent in 1975.
\textsuperscript{53} The inflow of migrant labor from LI countries into MI countries essentially postpones the Lewis 1958 turning point indefinitely. Outside settler countries such as the United States and Australia, migrant labor does not seem to have been a factor in earlier industrializers, including HI Asia, where business had, at some point, to confront the challenge of labor shortages. Today’s large MI countries are all in close geographical proximity to LI countries and lack incentives and the capacity to control the flow of migrants. See, for example, World Bank 2007 on Malaysia.
\textsuperscript{54} See Doner and Schneider 2016, Table S3. Measures of informality differ across sources. We use Schneider, Buehn, and Montenegro 2010 because their estimates cover all countries for a longer period. They define the shadow economy as all untaxed and unregulated economic activity. As such, it understates informal employment because it excludes from the estimates legally registered self-employment and informal workers employed in formal firms (both counted as informal in other measures).
\textsuperscript{55} Levy 2010; World Bank 2012b.
\textsuperscript{56} Schneider, Buehn, and Montenegro 2010, 45–47.
\textsuperscript{57} For example, labor-market regulations in Latin America either were stable or became more restrictive since the 1990s (Carnes 2014). East Asia’s labor regulations are “relatively stringent” and in some countries are becoming stricter (Packard and Nguyen 2014, xxiii).
\textsuperscript{58} Perry et al. 2007, 13.
the labor force that involves, among other things, divergent policy interests. Because, for example, formal sector workers have longer job tenure and benefit from on-the-job training for specific skills, they have an interest in greater subsidies for in-firm training. By contrast, informal workers, who shift jobs every few years, would prefer investment in vocational schools offering general training (Section IV examines interests in education). Frank-Borge Wietzke also emphasizes differing interests in labor-market policy. Outsiders with insecure work contracts prefer employment generating “active” labor-market policies, for example, public employment centers, labor-market training, and subsidized employment. Insiders focus on the security of their contracts, worker protection, and lower public spending on employment policies. Although the interest cleavages between formal and informal are often attenuated by movements of workers between sectors over time, it is nonetheless rare to see organized coalitions that incorporate both insiders and outsiders.

The electoral strategies of parties and politicians can deepen these labor-market cleavages and reinforce the divergence in preferences between workers in the informal sector and workers in the formal sector. Some parties, for example, use segmented strategies by appealing to poor voters with clientelist, individual benefits, on the one hand, and to richer groups with programmatic appeals, on the other hand. In essence, this segmentation allows parties to ignore the programmatic interests of the poor. At a minimum, the strategy further fragments the labor force that involves, among other things, divergent policy interests. Because, for example, formal sector workers have longer job tenure and benefit from on-the-job training for specific skills, they have an interest in greater subsidies for in-firm training. By contrast, informal workers, who shift jobs every few years, would prefer investment in vocational schools offering general training (Section IV examines interests in education). Frank-Borge Wietzke also emphasizes differing interests in labor-market policy. Outsiders with insecure work contracts prefer employment generating “active” labor-market policies, for example, public employment centers, labor-market training, and subsidized employment. Insiders focus on the security of their contracts, worker protection, and lower public spending on employment policies. Although the interest cleavages between formal and informal are often attenuated by movements of workers between sectors over time, it is nonetheless rare to see organized coalitions that incorporate both insiders and outsiders.

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insiders and outsiders and impedes broader coalition building. Moreover, some politicians use forbearance (nonenforcement against informal practices such as squatting and street vending) as an electoral appeal, and those in the informal sector come to view these forbearance benefits as a significant part of their perceived “welfare” system. Forbearance is viewed by poor voters as a better indicator of the class sympathies of candidates than are promises of traditional welfare benefits (like education), and hence it further undermines the possibilities for constructing a programmatic upgrading coalition. The general point is that several different strategies can incorporate informal workers into electoral politics with promises of benefits not connected to upgrading and in ways that divide formal and informal workers. Dani Rodrik paints a vivid picture of the political consequences of a large, enduring informal sector:

Politics looks very different when urban production is organized largely around informality, a diffuse set of small enterprises and petty services. Common interests among the non–elite are harder to define, political organization faces greater obstacles, and personalistic or ethnic identities dominate over class solidarity. Elites do not face political actors that can claim to represent the non–elites and make binding commitments on their behalf. Moreover, elites may prefer—and have the ability—to divide and rule, pursuing populism and patronage politics, and playing one set of non–elites against another.

FOREIGN DIRECT INVESTMENT

Sustained, cohesive support from a broad segment of big business is likely a necessary condition for high-cost, long-term investment in upgrading institutions. However, business in most MI countries is structurally fractured along a dimension that fragments interests on key issues related to upgrading policies, such as education (Section IV). The cleavage—absent in all large earlier industrializers—is between foreign and domestic firms. The stock of FDI in large MI countries is not high when compared to the stocks in OECD countries today, but the more relevant comparison is between MI countries in the twenty-first century (34 percent of GDP) and HI countries in the twentieth century (4 percent of GDP for East Asia and 9 percent GDP for OECD) (see Table 5). The average percentages would have been even lower for HI countries.

63 For Luna 2014, 63, inequality and the segmenting party strategies it encourages make “it more difficult to craft cross-class political coalitions and develop more encompassing programmatic platforms.”
64 Holland 2017.
65 Rodrik 2015, 26. For Mazzuca 2013 large informal sectors were necessary for the rise and consolidation of “rentier populism” in Latin America.
in the twentieth century, when they were making the transition to HI. Moreover, MNCs are among the largest of big businesses in today’s MI countries. In Latin America they usually account for a third to a half of the hundred largest firms. MNCs are especially dominant in the manufacturing sectors of many MI countries, including in our two Southeast Asian cases, Malaysia and Thailand, where they account for thirty-four and thirty-one of the top fifty manufacturing firms, respectively. This typically translates into MNC dominance of manufactured exports and contrasts with the cases of the East Asian HI “graduates,” where domestic firms account for the majority of manufacturing exports. At a minimum, this MNC dominance shuts the largest domestic firms out of manufacturing.

Of course, market-seeking MNCs might be amenable to joining upgrading coalitions, but these firms have technology and marketing advantages derived from home markets that protect them from domestic competitors. Because of their market advantages, they can also afford to pay workers more and poach skilled workers elsewhere, thereby also creating a private solution to the skills problem (discussed in more detail in the next section). Efficiency-seeking MNCs operating in global production networks (GPNs) might have stronger interests in joining an upgrading coalition, but they also have other options: solving skills needs internally, relying on affiliated foreign suppliers, or simply moving higher value-added production to a country that already has the desired skills and infrastructure.

On technology policy in particular, it is hard for foreign and do-

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**Table 5**

<table>
<thead>
<tr>
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<th>Large Middle-Income countries</th>
<th>Recent High-Income East Asia</th>
<th>High-Income OECD</th>
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<tbody>
<tr>
<td>Stock of FDI in 1990</td>
<td>9</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Stock of FDI in 2013</td>
<td>34</td>
<td>13</td>
<td>58</td>
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*Source:* Doner and Schneider 2016, Table S1.

*Note:* For countries included, see Table 1.

*Note:* Excluding Hong Kong and Singapore.

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66 Schneider 2013.
67 Euromoney Institutional Investor Service (EMIS).
domestic firms to find common ground, especially for long-term, costly investments in building up the institutional infrastructure needed for innovation. Although some domestic firms might favor such a push, foreign firms typically do not, as they do most of their R and D in their home countries. When MNCs do invest in R and D in developing countries, as they do increasingly in India and China, it is often in the lower technology, more routinized elements of R and D. But MNCs invest very little in R and D of any kind in large MI countries and have little interest in paying for costly long-term upgrading for domestic innovation.

In terms of collective action and political engagement, MNCs are pretty deficient, as Albert Hirschman first noted decades ago. For one, MNCs regularly operate through more direct ties to relevant agencies, such as boards of investment. MNCs also sometimes create separate associations, such as the ubiquitous Amchams (American Chambers of Commerce), or split off separate associations in particular sectors (for example, mining in Chile or banking in Argentina). Moreover, some prominent associations exclude foreign firms. For example, in Mexico the exclusive CMHBN (Mexican Council of Business Men, a council of the top forty or so business groups) had no MNC members, and in TUSIAD (Turkish Industry and Business Association), the main association for big business in Turkey, less than 10 percent of close to six hundred members were from MNCs. In turn, governments, when establishing councils to meet with business, often exclude foreign firms (for example, CDES [Economic and Social Development Council] in Brazil). Or MNCs opt not to participate in tripartite meetings, something that often occurs in Association of Southeast Asian Nations (ASEAN) countries. In addition, MNCs usually have further incentives to disengage from politics because they want to maintain a low profile (and stay out of government crosshairs) and/or because expat managers may know little about how best to engage. In sum, even were they more interested, MNCs would make poor coalition partners.

69 Amsden 2009.
70 In Malaysia, one of the MI countries with the most advanced manufacturing sectors, FDI “is neither widening nor deepening the export product mix. . . . And FDI is not helping to significantly enhance research capacity”; Yusuf and Nabeshima 2009, 22. When MNCs have engaged in technology transfer and more positive spillovers for domestic firms in some countries (such as China or Brazil in the twentieth century), it was the result of carrots and sticks from government and does not mean that MNCs were willing partners in potential upgrading coalitions.
71 Hirschman 1968.
72 Shadlen 2015 chronicles decades of conflicts between separate associations representing MNCs and domestic producers in pharmaceuticals in Latin America.
73 TUSIAD 2013, 84–90.
74 Ofreneo and Abyoto 2015, 11.
Sensitivity to the impact of business fragmentation has been in short supply. Nearly all multilateral agencies—the World Bank, Inter-American Development Bank (IDB), OECD, the UN Economic Commission for Latin America and the Caribbean, and others—have published reports on the centrality of business-government dialogue and collaboration in industrial policy, usually with reference to past successes in Ireland, Korea, Singapore, and Taiwan. Yet these studies say little or nothing about the types of structural cleavages within the business community that might impede such collaboration. They do not mention, for one, that foreign firms were not included in earlier business-government forums, except when pressured to join state-initiated coalitions, as in Ireland and Singapore.

IV. The Absence of Upgrading Coalitions in Education

Given the universal consensus on the need for more and better education, one might think that this would be the area where resistance to reform in MI politics would be easiest to overcome. And the historical precedents are clear: big push education politics were evident in countries that escaped MI in the late twentieth century. Yet broad, effective education coalitions have not been forming in today’s MI countries. In the case of education upgrading, most large firms and many workers share a lack of concern over public school performance, though the sources of their interests diverge.

To get at the institutional challenges to upgrading education, it is worth remembering that the politics of expanding low-quality primary education are relatively simple in the process of growing from LI to MI. The costs of building schools and hiring teachers (with minimal training and salaries) are low, and the political benefits to local politicians are high. By contrast, rapidly improving quality of schools through twelve years of basic education requires costly upgrading of facilities, replacing ineffective teachers (often in opposition to powerful teachers unions), and training new teachers. Moreover, getting the right sorts of education, especially technical (often vocational) education, requires knowledge of the local economy, coordination with business, and ongoing curricular revision. Politicians reap few visible benefits and must manage costly distributional conflicts, especially with teachers, over pay and performance. In sum, the task of achieving profound and lasting

75 For a review, see Schneider 2015.
76 See, for example, Jeong and Armer 1994; Kosack 2012.
77 Stein et al. 2005; Grindle 2004.
Educational reform takes decades, extending well beyond the terms of incumbent politicians.

These costs and challenges mean that a strong, broad-based, durable coalition is required to keep upgrading reforms going, but it comes at precisely the time when interests are quite divergent. Under high levels of inequality, the wealthy tend to favor public investment in tertiary, often nontechnical education, rather than in secondary and postsecondary technical training. Moreover, the wealthy and the professional middle class in most middle-income countries can send their children to private schools and have little interest in paying more in taxes for the education of poorer children.

Inequality, along with informality, also discourages poorer workers from investing their own funds in education. The costs of education to them (relative to their minimal disposable income) are high, as are opportunity costs (relative to employment options in the informal economy). The returns on education for poor households are therefore often uncertain. Workers are also split over education between those in low-tech or informal jobs that require few skills and those in the labor elite in capital-intensive firms. And although those in the labor elite have more skills, many were acquired on the job and so these workers have little interest in pushing for higher taxes to provide more schooling for others. Some evidence for the lack of interest among workers and the poor in upgrading reforms in education comes from opinion surveys across Latin America. Summarizing the findings, the IDB study thought it “rather disturbing” that two-thirds of all respondents (72 percent of poorer respondents) were satisfied with their local schools, despite evidence of the shortcomings of their overall educational systems.

Even without bottom-up pressure, unified business support for investment in human capital might be sufficient to push for major upgrading in education. If a large proportion of big businesses agreed

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78 See Birdsall and Sabot 1997; Ansell 2010. Public education spending can thus grow under pressure from the wealthy for more university spots, from local builders searching for school construction contracts, or from international institutions such as the World Bank. Conversely, our emphasis is on problems of quality that go beyond the level of resources committed.


80 Returns to education were lower for poorer workers than for richer workers in Argentina, Brazil and Mexico, and slightly higher for poorer workers in Colombia and Thailand; see Di Gropello 2006, 76–77.

81 Bassi et al. 2012.

82 Lora 2008, 15, 27.

83 Kosack 2012 argues that broad advances in education require either an organized coalition of the poor or strong employer pressure. Either is sufficient, but they arise only under specific conditions. The poor depend on political entrepreneurs to overcome barriers to collective action. Employers must operate in flexible labor markets where an increasing supply of skilled workers lowers their cost (as was historically the case in Taiwan). These arguments complement ours, but in our view pay too little attention to divergent interests and cleavages among workers and among firms.
that their long-term future depended on an increasingly more skilled workforce, that the cost of this education was too high for firms to bear (especially if they are in competitive international markets), and that therefore the cost had to be “socialized” and borne by the government, this coalition might be able to push state actors to provide the necessary upgrading policies and institutions. This is close to the story usually told about business support for education in Korea.84

The fissures within big business in MI countries make such a unified voice improbable, however. First, the interests and capacities of domestic firms and MNCs are different. Many MNCs can move their investments to other countries, those with more human capital, rather than invest in upgrading education. MNCs that are less mobile, either because they are investing in natural resources or are in countries with large domestic markets, usually have sufficient resources to pay internally for training their typically small workforces.85 In the rare cases of countries that made it into HI with significant FDI (Hong Kong, Ireland, Singapore, and Spain), earlier investments in education (often motivated by other political considerations, to be discussed below) preceded rapid growth in FDI. Many MNCs were in fact drawn to these countries precisely because of their high levels of education.86

Nor do most of the largest domestic firms have strong interests in educational upgrading. As noted earlier, most such firms are diversified business groups with large subsidiaries in commodities, natural resources, regulated utilities, and other services. In these sectors, firms need either small numbers of skilled workers in capital-intensive sectors that can be covered by in-house training, or large numbers of less-skilled workers. Service firms and others in nontradable sectors might have a generic interest in education, but they do not feel competitive pressures from international markets for more urgent action. In surveys of problems and needs, firms in Latin America usually do not list skills as a major concern.87 Across all upper MI countries, lack of skills was not among the three most severe problems facing firms.88 Although most business associations regularly list education as one of their policy priorities, their advocacy is in practice too feeble to support a business-led coalition that would impose the heavy costs required to upgrade education.89

85 On the lack of MNC interest in promoting education in Mexico, see Hanson 2008.
86 Paus 2005.
88 World Bank 2012b, 24.
89 Schneider 2013, chap. 6. A fuller analysis of business could also examine divisions among smaller firms. A minority connected to export markets and/or GPNs would be potential partners in upgrading coalitions; see, for example, Tan 2014 on Malaysia. However, these smaller firms tend to be much weaker politically.
In sum, after getting most children into schools, the challenge for M1 countries is to improve the quality of education and expand higher education and vocational training. The shift from quantity to quality takes time (beyond the horizons of most politicians), resources, and political resolve to confront entrenched interests in education bureaucracies and teachers unions. For all these reasons, cohesive, enduring coalitions matter, but just at a time when workers and big business are seriously fragmented.

V. Further Comparisons

Comparative analysis across several dimensions provides further insight into institution building and coalitions in escaping the M1 trap. This section briefly considers comparisons (1) within our nine large M1 countries, with a focus on exceptional instances of sectoral upgrading; (2) across our nine countries, highlighting differences between Malaysia and Thailand; and (3) with more recent graduates to HI in the twentieth century. The section closes with a brief consideration of some significant ways in which China differs from countries in the M1 trap.

Some M1 countries have isolated cases of sectoral success where narrower business coalitions pushed the creation of complex, enduring upgrading institutions. Standout cases include wine and software in Argentina, ethanol and airplanes in Brazil, aquaculture in Chile, and rubber-based manufactured goods and electronics in Malaysia. Core factors contributing to the successes across these cases were brisk international competition, perceptions of crisis, and effective state promotion (especially in Brazil and Malaysia), all of which fostered strong, concerted business engagement in upgrading sectoral institutions, especially related to training and innovation. MNCs in these sectors were mostly conspicuous by their absence (other than Malaysian electronics and Argentine software). Overall, this rare combination of factors helps to explain why these are more the exceptional sectors that prove the general rule of social fragmentation and the absence of upgrading coalitions.

Turning to cross-national heterogeneity, comparisons between Malaysia and Thailand offer another window into the pivotal role of coalitions. Among our nine large M1 countries, Malaysia has the highest GDP per capita while Thailand’s is below average for the group. In societal terms, Malaysian labor is less fragmented, with roughly 80 percent of

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90 For case studies of some of these sectors, see McDermott 2007; Sabel et al. 2012; Doner 2015; Rasiah 2001.
the labor force in formal occupations in contrast to only 42 percent in Thailand;\textsuperscript{91} inequality generally trends lower in Malaysia.\textsuperscript{92} These differences correspond to contrasting coalitions and associated institutions found in the two countries. Sustained growth in Malaysia occurred under a broad, elite-led coalition, known as the National Front (Barisan Nasional, or BN), consisting of ethnic Malays (60 percent of the population), ethnic Chinese (30 percent), and ethnic Indians (roughly 10 percent). The BN’s most powerful component is the cross-class, highly institutionalized United Malays National Organization (UMNO), though the BN also comprises key ethnic Chinese and Indian parties, each of which includes both business and labor.\textsuperscript{93}

Although UMNO imposed some discriminatory policies against the economically powerful ethnic Chinese, it largely practiced a “hegemonic pragmatism.”\textsuperscript{94} The focus was on reducing income differences across ethnic groups through a combination of gradual affirmative action and structural changes via agricultural reform and industrial promotion. After the turmoil of the late 1960s, fears of social unrest (“internal implosion”) further promoted elite cohesion and more effective development policy.\textsuperscript{95} This led to a “dual bureaucratic structure” in which UMNO promoted and monitored institutions, especially rural development bureaucracies implementing long-term reforms at the local level, but also in key sectors such as rubber.\textsuperscript{96} By contrast, fragmented interest groups and poorly institutionalized parties in Thailand, in part the result of higher levels of inequality and informality, have contributed to “a policy environment where needed public goods, reforms and investments were chronically undersupplied.”\textsuperscript{97} In short, upgrading coalitions helped nudge Malaysia close to the HI threshold but were weaker in Thailand and other large MI countries.

Another potentially illuminating set of comparisons is between current large MI countries and countries that became HI in the late twentieth century. Most recent, second-wave graduates to HI status had special circumstances that helped them elude the MI trap by overcoming the

\textsuperscript{91} Ofreneo and Abyato 2015, 5. Other calculations show different estimates of levels of informality, but all show consistently large differences between Thailand and Malaysia. See Doner and Schneider 2016.

\textsuperscript{92} Kuhonta 2011.

\textsuperscript{93} Pepinsky 2009.

\textsuperscript{94} Kuhonta 2011, 87.

\textsuperscript{95} Kuhonta 2011, 43.

\textsuperscript{96} Kuhonta 2011, 37. A recent program, PEMANDU (Performance Management and Delivery Unit), promoted sustained business-government dialogue and coordination. For a positive review, see Sabel and Jordan 2015.

\textsuperscript{97} Bernhard et al. 2015, 15.
political obstacles discussed in Section III and by facilitating collective action and coalition building. The thirteen countries that escaped MI in the 1980s and 1990s comprised three distinct groupings: 98 East Asian countries with developmental states (Japan, Korea, Taiwan), late entrants into the European Union (Greece, Ireland, Portugal, and Spain), and very small countries with populations under eight million (Equatorial Guinea, Hong Kong, Israel, Mauritius, Puerto Rico, and Singapore). Security threats in the East Asia cases, as well as in Israel—combined with contentious politics from below and a dearth of exportable natural resources—greatly facilitated elite cohesion and coalition building. 99 EU accession similarly helped forge consensus, especially among elites, and the economic benefits and direct transfers within the EU were also substantial. 100 For Southern European entrants, accession in the 1980s was associated with huge jumps in education spending. 101

In addition, small size can facilitate elite unity, though it does not guarantee it. Collective action is generally easier to achieve in countries with a few million inhabitants—with their correspondingly smaller and more geographically concentrated elites—than in countries with tens or hundreds of millions. For the small countries of Northern Europe, Peter Katzenstein emphasizes how smallness and a resulting sense of vulnerability fostered an ideology of social partnership, better organized social groups, and closer personal ties (as political and economic elites from different spheres all knew one another). 102 In smaller countries, rifts within business are less common, either because foreign business is absent, as in Finland, or because MNCs are dominant and well incorporated into a national coalition that promotes upgrading, as in Ireland and Singapore. 103

Some of these special circumstances may also help to explain China’s rapid growth into—and possible early shift out of—middle income. True, inequality increased dramatically (.47 Gini coefficient), raising debates about possible “Latin Americanization.” Yet on other dimensions, China shows that it is already advancing out of MI status with lower informality (a shadow economy of 12 percent), extremely high investment (49 percent), low FDI (10 percent), high R and D spending

98 World Bank 2012a, 12; Felipe, Abdon, and Kumar 2012.
100 See, for example, Rhodes 2001; Vachudova and Hooghe 2009; Bruszt and McDermott 2014.
102 Katzenstein 1985, 32–36. For an updated review of consensual politics and policy innovation in small countries of Europe, see Cohen et al. 2012.
103 Paus 2005. Ultimately, Ireland was not as successful as other small countries (Denmark and Finland) with “creative corporatism” in promoting later high technology upgrading; see Ornston 2012, chap. 5.
(2 percent, not far below the OECD average), and educational institutions producing large numbers of engineers and technicians, including 21 percent of secondary students enrolled in technical education.\textsuperscript{104} This potential for moving quickly through MI status reflects China’s resemblance to earlier Asian developmental states by virtue of a clear connection for political elites between development and the capacity to address geopolitical challenges,\textsuperscript{105} a connection missing in other MI countries, and by virtue of the stability of its authoritarian regime.

In sum, these comparisons across a wide range of periods and contexts help illuminate cases where politics were more conducive to building and sustaining upgrading coalitions due to factors ranging from elite cohesion around things like EU accession, to more bottom-up pressures (as in Malay party dominance), to state-assisted upgrading in some successful sectors. These positive cases raise hopes that it is not impossible to escape the MI trap, but at the same time they highlight a range of rare facilitating factors that are as yet not common in most MI countries.

\textbf{VI. Conclusions and Implications}

Many contemporary MI countries find themselves on a path-dependent trajectory where the very factors that contributed to and/or accompanied their movement into middle-income status (such as informality, high FDI stocks, inequality, and low levels of human capital) both reinforce each other and constitute obstacles to progressing out of MI.\textsuperscript{106} By fragmenting business and labor, they undercut the potential demand for upgrading institutions. These conditions contrast with earlier HI graduates that, when transitioning to HI, did not face the combined, divisive cleavages of high and persistent inequality, informality, and reliance on FDI.

This article focuses on the primary domestic cleavages among social groups that impede the coalition building required for institutional upgrading. A fuller analysis of the MI trap would also need to incorporate further analysis of state capacity (and related pathologies of corruption and clientelism). For example, taxation is one core area of state capacity where MI states lag in terms of their ability to collect revenue, overall and especially in income taxes—a weakness commonly associated with large informal sectors.\textsuperscript{107} Institution building of the sort analyzed here

\textsuperscript{104} See Doner and Schneider 2016, Table S1; Lee and Li 2014.

\textsuperscript{105} See, for example, Hsueh 2011.

\textsuperscript{106} On low-skill equilibria and other negative complementarities, see Schneider 2013.

\textsuperscript{107} Gordon and Li 2009.
is costly and is likely to rely heavily on public funding, so tax capacity becomes a critical component. Coalition building is decisive in our view, and bureaucratic resistance and fragmentation can pose additional obstacles to effective policy and institution building. It is important, for example, to understand why education bureaucracies are often large, politicized sources of rents at the primary and secondary levels and fragmented at the tertiary level, while state-sponsored postsecondary vocational and technical education is fragmented and weakly related to business needs.

Our analysis of FDI and the shifting development requirements of the twenty-first century indirectly incorporates some international factors. A fuller analysis would also need to examine in greater depth a range of issues, from microlevel dynamics in GPNs to shifting international trade regimes (for example, the limits WTO membership places on industrial policy), to the overall opportunities for expanding high value-added exports. However, the international factors that were crucial in earlier industrializers—especially geostrategic threats and economic integration—are less relevant for large MI countries. The Cold War is over and the countries of Latin America and Southeast Asia, as well as South Africa and Turkey, face no imminent existential threat. Nor are recent trends in economic integration likely to help forge domestic upgrading coalitions. If EU accession returns to the agenda in Turkey, it could have this enabling effect. By contrast, Mexican integration through NAFTA did bring elites together, but it was around a common set of neoliberal policies rather than around institution building for upgrading.108 In Asia, regional integration through ASEAN was more politically driven, with little engagement by business, especially domestic business.109

Understanding this path-dependent dynamic is all the more important in light of some important shifts in the global economy that did not confront earlier successful industrializers. Following Alexander Gerschenkron, the advance of technology and the prior industrialization of other countries change the challenges and opportunities for the next graduates to HI. So, while twentieth-century industrializers could rely on relatively autarchic growth, Fordist mass production, and integrated industrial sectors, today’s would-be graduates to HI face a much more open global economy characterized by rapid product cycles, intensely competitive markets, GPNs, and dominant service sectors.110 Therefore, the specific economic trajectories to HI will be different in the twenty-

109 Ravenhill 2010.
110 Whittaker et al. 2010.
first century, but they will still require strong institutions and enduring support coalitions to create and sustain them.

Our analysis of the MI stall has several practical and theoretical implications. First, on the practical side, it is necessary to recognize that the policy recommendations typically proposed are difficult to implement and require institutions with significant capacity to mobilize resources and coordinate diverse interests. This phase of institutional development is not just about getting the rules right and providing broad incentives to attract capital and labor into new sectors; more important, it is also about building effective organizations like schools and research centers, as well as various forums where different economic agents can cultivate long-term collaborations. The neoliberal Washington consensus of the 1990s revolved primarily around a set of policies. The new, more pragmatic consensus of the 2000s emphasizes, by contrast, institutions in industrial policy, human capital, and governance generally. This represents progress, but the next step is to reach a better understanding of what it takes to build institutions.

Thus, a further implication of our analysis bears on institutional origins. Economists are correct that building such institutions is best understood as a contractarian process allowing interdependent actors to reap gains from trade. But on its own, this formulation is incomplete, as it fails to acknowledge that strong institutions typically emerge through the incremental interactions of a small number of large, mutually vulnerable actors. These are precisely the conditions undermined by the structural factors or societal disarticulation so common in today’s MI countries. Indeed, although accounts of coalitional bases of prior movement into high income do acknowledge differences within and among business and labor, the kinds of foreign-local and formal-informal splits within business and labor respectively are striking in their absence from these accounts.

At a broader theoretical level, our analysis adopts a more structural perspective—one that is focused on the long-term evolution of social and economic groups—than the widespread institutional consensus in development studies. Much recent debate has revolved around which institutions are the most important, often pitting liberal arguments (property rights and the rule of law) against statist alternatives (industrial policy and effective bureaucracies). But much of this debate is premature and misplaced. We must first achieve a better understanding of the coalitional foundations needed to create and sustain these insti-

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111 See, for example, Jones-Luong and Weinthal 2004.
tutions, as well as of the structural factors that shape the potential for coalition building.

**Supplementary Material**

Supplementary material for this article can be found at http://dx.doi.org/10.1017/S0043887116000095.

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