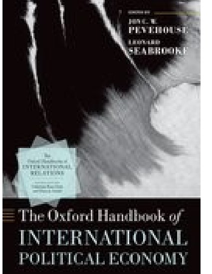

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CHAPTER

9 Formal Models of International Political Economy: Looking Back and Moving Forward

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Abstract

This chapter examines how scholars use formal models to study International Political Economy (IPE). This small, but important, body of research revolves around three substantive research questions. First, scholars have asked: how do states promote international trade by reducing tariffs and non-tariff barriers? Second, they ask: how do states encourage foreign investment by making binding pledges to protect foreign investors? Finally, scholars have studied: how do states stabilize and grow their economies? For each of these topics, the chapter looks back at past findings from formal models. It then discusses how IPE scholars can profitably move forward in their future research on these important topics.

Keywords: economic development, formal models, formal theory, International Political Economy (IPE), investment, trade

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Scholars of International Political Economy (IPE) have made important findings about the interaction of economics and politics in regulating the global economy. What are the major insights provided by formal models of IPE, and how can future scholars profitably move scholarship forward? This chapter provides an overview of IPE scholarship, which is organized by the substantive topics that have been addressed by formal models. These topics include how states promote international trade, protect foreign investment, and stabilize and grow their economies. For each of these topics, I begin by looking back at past findings from formal models. I then discuss how IPE scholars can profitably move forward in their future research. Based on this

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discussion, I conclude by asking what explains the relative paucity of formal models of IPE, and when are formal models more or less useful for understanding IPE?

Promoting International Trade

States pass many kinds of policies to regulate the sale of goods and services across borders. These include both tariffs—which are taxes on a good moved across a border—and non-tariff barriers—which include quantitative restrictions on the amount of goods and services that can be traded, and regulations and standards that restrict trade.

Economists have long argued that the main reason why states trade is comparative advantage. This comparative advantage can come from variation across states in technology or in productive assets known as factors, like capital, labor, and land. Conventional accounts of comparative advantage argue that states benefit in the aggregate if each state specializes in producing the good or service in which it has a comparative p. 130 advantage, and then removes ↳ barriers to trade across borders. In early formal models of international trade, comparative advantage leads to trade across industries. For example, a state that is abundant in land may specialize in agriculture, while a state that is abundant in labor may focus on manufacturing.

Looking Back

IPE models of trade politics focus on the distributional (rather than the aggregate) effects of trade. Traditional models of trade politics focus on three key actors. First, consumers in these models benefit from low tariffs at home, which reduce the price of imported goods and services. To the extent that these consumers are also workers, most formal models assume that they can easily shift their labor in response to market demand. Second, exporting firms benefit from low tariffs abroad, where they sell products to foreign consumers. Third, import-competing firms benefit from high tariffs at home to limit foreign competition. Trade policy therefore pits the interests of consumers and exporting firms, who favor free trade, against import-competing firms, who oppose free trade.

Economic theory suggests that the aggregate benefit of international trade, particularly for consumers, should cause states to reduce trade barriers. Yet governments often neglect consumer interests when making trade policy (Betz and Pond 2019b). Instead, governments are more responsive to firms who lobby against free trade. Such firms can use the tools available to any special interest group to achieve their goals. For example, Ehrlich (2007) shows that trade lobbying is affected by access to policy-making. Similarly, Ballard-Rosa et al. (2016) demonstrate that political pressure to protect domestic firms rises and falls over time in response to economic crises.

Why can't consumers also lobby lawmakers in favor of free trade? Formal models usually highlight two causal factors. First, collective action problems make it difficult for larger groups to mobilize politically. Smaller, concentrated groups are therefore more likely to secure their preferred trade policies than larger, diffuse groups (McGillivray 2004). Second, information asymmetries affect who knows what about trade policies. Firms that actually sell goods and services across borders are believed to be more informed about trade policies than consumers, who cannot easily understand whether high prices are caused by trade policy or other economic factors (Kono 2006; Mansfield, Milner, and Rosendorff 2002).

Additionally, trade policy lobbying is affected by the design of domestic political institutions. Lohmann and O'Halloran (1994) argue that executives have strong incentive to protect consumers because they represent the whole electorate. Yet legislators, who usually have more power over trade policy, are subject to local interests that can lead to protectionism. Similarly, Rogowski and Kayser (2002) argue that electoral rules (e.g.,

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majoritarianism, proportional representation, etc.) affect how politicians trade off consumer and firm interests. Additionally, governments with more veto players may find it more difficult to negotiate and ratify treaties that liberalize trade (Mansfield, Milner, and Pevehouse 2007; Milner and Rosendorff 1996).

Formal models in IPE usually represent these microfoundations using the Prisoners' Dilemma. The Nash equilibrium of this static game is for both states to choose Protectionism. Yet both states would be better off if they could jointly agree to Free Trade. The central theoretical question in most trade models is therefore how states can credibly commit to free trade, despite the temptation to protect their markets from foreign competition.

 Most IPE models argue that international institutions provide a solution to the Prisoners' Dilemma. For example, Mansfield, Milner, and Rosendorff (2002) argue that institutions like the World Trade Organization (WTO) mitigate information asymmetries between consumers and import-competing industries. They construct a formal model in which WTO lawsuits act as fire-alarms that alert consumers to protectionist policies. Leaders therefore benefit from signing trade agreements because the possibility of being caught restricting trade allows them to resist pressure from import-competing industries. Consumers accordingly view trade agreements as a credible signal that their leader is committed to free trade.

Hollyer and Rosendorff (2012) use a complementary model to argue that trade agreements reduce the variance of trade policy. By reducing uncertainty about future domestic policies, consumers can make better economic decisions that increase their well-being. They argue that democracies, which are more responsive to the average voter's well-being than autocracies, are therefore more likely to sign more trade agreements. Carnegie (2014) argues that a similar mechanism exists at the firm level: when firms have confidence that their government is committed to free trade, they are more willing to make long-term investments in the production of goods and services for export.

These political dynamics also affect how states design trade agreements (Johns and Peritz 2015). One source of variation in trade agreements is the *depth* of cooperation—how much states are required to reduce trade barriers. Mansfield, Milner, and Rosendorff (2000) argue that ratification dynamics shape the depth of tariff concessions. They argue that when two democracies negotiate, each side must make deep commitments to ensure that the agreement will be ratified by their trading partner's domestic legislature. However, when a democracy negotiates with an autocracy, it need not make such deep concessions because an autocrat does not need support from an independent legislature.[1]

A second source of variation in trade agreements is *flexibility*—how much states tolerate violations of trade concessions. IPE scholars argue that leaders often face unexpected economic and political pressure to restrict trade, and trade agreements must be designed to managed such pressure (Johns and Rosendorff 2009; Rosendorff and Milner 2001). One tactic for managing temporary, stochastic pressure is for injured states to tolerate occasional unilateral violations of trade agreements in exchange for compensation (Rosendorff 2005). This mechanism allows for the efficient breach of trade agreements. An alternative tactic is for law to explicitly allow appeals to exception, whereby states can make principled legal arguments that external circumstances allow them to restrict trade (Pelc 2009). If a neutral actor, like an international court, can observe and verify these external circumstances, then cooperation can be stable over time despite occasional violations.

While most IPE scholars have examined such design attributes in isolation, trade agreements are designed with multiple dimensions in mind. Recent formal models show that when states negotiate deeper trade concessions, they should incorporate more flexibility (Johns 2014). Depth and flexibility therefore act as complementary attributes of legal agreements (Johns 2015).

Finally, political factors also affect trade disputes between states. Many recent formal models have moved beyond the fire-alarm metaphor to examine trade dispute politics. One strand of research examines the timing of disputes. Rosendorff and Smith (2018) argue that when a state's government changes, the coalition of

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interests seeking trade protection also changes. In their formal model, government changes trigger policy changes, which in turn trigger trade disputes. They argue that the effect of government turnover is strongest within autocratic states because autocrats are more likely to narrowly target trade protectionism, leading to more dramatic changes in trade policy when governments change. Similarly, Chaudoin (2014) argues that states are most likely to challenge trade policies when their trading partner will be most responsive to the demands of domestic consumers, such as during elections held at times of low unemployment. However, he argues that such circumstances also make a government less likely to violate trade agreements in the first place.

Another strand of research emphasizes multilateralism in trade disputes. Johns and Pelc (2014) argue that litigants strategically decide whether to encourage broad participation in trade disputes. They argue that broad participation both lowers the benefit of winning a trade dispute—because concessions must be shared amongst more states—and lowers the cost of losing a dispute by politicizing the outcome. These two factors affect pre-trial demands and settlements. Overall, complainants have incentive to promote participation when their case is weak, and to limit participation when their case is strong. Similarly, Johns and Pelc (2016) argue that strategic incentives affect state decisions about whether to participate in disputes. While participation gives states access to private benefits, it also reduces the likelihood of settlement. Accordingly, affected states may refuse to participate in trade disputes to encourage pre-trial settlements that expand trade. Finally, Johns and Pelc (2018) argue that free-riding incentives affect initial decisions about whether to file trade disputes. They argue that trade violations are less likely to be challenged when their impact is spread out over many trading partners.

Moving Forward

Recent developments in economic theory—called "new new trade theory" (NNTT)—have dramatically changed our understanding of international trade. NNTT was motivated by changing empirical patterns in global trade that began in the 1980s. Economists noted that instead of trading goods across industries, most states had shifted to intra-industry trade. Additionally, firm-level variation within industries (in employment, productivity, profits, etc.) suggested that traditional formal models of cross-industry trade were no longer adequate.

In a seminal formal model, Melitz (2003) constructed an alternative economic theory of international trade that matched new empirical patterns. In this model, firms within a state vary in their productivity at producing goods and services, and firms produce differentiated products, which are unique varieties of a good or service. So, for example, instead of making wine, firms produce many different varieties of wine, each with their own unique characteristics. If consumers prefer variety, then a market will contain many firms that vary in their attributes (employment, productivity, profits, etc.).

Many of the key political features of the traditional trade model still hold under NNTT. In the Melitz model, consumers still benefit from international trade because they can buy a broader variety of goods at lower prices, and can change jobs easily if their own employer is put out of business by foreign competition. Additionally, exporting firms prefer low tariffs abroad, while import-competing firms prefer trade protection at home (Gilligan 1997; Kono 2009).

One path forward for IPE scholarship is to ask: how does NNTT affect trade politics?

The basic assumptions and insights of formal models of trade policy should continue to hold because the basic preferences over trade policy still hold. However, the Melitz model suggests that political cleavages will no longer be based on industries; instead, cleavages can occur within industries. Future scholarship should use the insights from NNTT to probe three questions more deeply: who supports or opposes trade liberalization; how does product differentiation affect tariffs; and how does NNTT extend to non-tariff barriers?

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First, NNTT does not tell us which specific firms will support or oppose free trade. Firms that face discrimination at home—such as women- or minority-owned businesses—may benefit most from international trade (Osgood and Peters 2017). In contrast, firms that already export goods may benefit from restricted trade abroad (Osgood 2016). Productivity does not imply support for free trade. Supply chains—in which goods are bought as inputs for making other goods—can also affect trade policy preferences (Osgood 2018).

Second, product differentiation may allow governments to narrowly target trade protection. For example, instead of lobbying on wine tariffs, vintners may lobby on tariffs on cabernet, chardonnay, and merlot. Gilligan (1997) and Kim (2017) suggest that product differentiation transforms tariff lobbying into a private good, reducing collective action problems and increasing protectionism. However, NNTT also suggests that stronger consumer preferences for differentiated goods may reduce trade barriers over time (Osgood 2019).

Third, scholars should consider how NNTT affects non-tariff barriers, which can raise costs for both domestic and foreign firms. For example, Kennard (2020) examines firm-level lobbying for climate change policies that increase production costs, and Perlman (2020) examines firm-level support for safety-based product bans. While such policies and bans directly reduce firm profits, they also reduce economic competition, which can indirectly raise profits for some firms. Similarly, Gulotty (2020) argues that supply chains have dramatically changed the politics of non-tariff barriers like labeling and licensing rules.

An alternative path forward is to ask: how can we understand the recent backlash against international trade? In recent years, voters have opposed free trade in the US and other developed democracies (Johns, Pelc, and Wellhausen 2019). Yet existing trade theory suggests that consumers benefit (in the aggregate) from free trade. What explains this backlash? Why do our theoretical models not match the real-world voter preferences?

The most likely answer is that trade theory largely ignores labor market adjustment costs. For example, Melitz (2003) assumes that labor can be freely redeployed across both firms and industries. So a steel-worker whose firm is harmed by foreign competition can freely transfer to another steel mill or work in another industry, like software design. Clearly, this assumption is unrealistic.

Policymakers understand that trade liberalization harms workers who cannot easily change jobs. Accordingly, they often provide trade adjustment assistance, which gives compensation and education to displaced workers. Yet such programs have not quelled political opposition to free trade. Kim and Gulotty (2019) argue that governments have not provided adequate trade adjustment assistance because doing so signals to voters that trade policy may harm them. Politicians may therefore want the illusion that everyone benefits from free trade. Future IPE scholars should consider this mismatch between the illusion and the reality of adjustment costs. Doing so will require new theoretical models of both the economics and politics of labor markets.

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Protecting Foreign Investment

Foreign investment can come in three forms. First, portfolio investment consists of the purchase of publicly-listed stocks and bonds by foreigners. Second, sovereign debt consists of loans to governments from private or public actors. Third, foreign direct investment (FDI) involves an investment by a firm in one state into business activities that take place in another state.[2] For this investment to qualify as FDI, the firm must have long time-horizons and be directly involved in business activities abroad.[3] FDI usually involves the purchase of immobile assets, which cannot be easily redeployed for other activities. Both portfolio investment and sovereign debt have received almost no attention from formal IPE scholars. But a growing body of scholarship uses formal models to assess FDI politics.

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Looking Back

Most scholars argue that developing states want FDI, but face a commitment problem. They argue that strategic interactions between a foreign firm and host government unfold sequentially over time, as shown in Figure 9.1. First, the firm must decide whether to invest in the host state. If the firm invests, then the host government must decide whether to take the investment. Such "taking" can correspond to outright expropriation, severe contract violations, or changes in the regulatory environment that substantially decrease the value of the foreign firm's investment while providing an economic or political benefit to the host government.

From the firm's perspective, the investment is only profitable if its property rights are respected. The worst outcome is accordingly to invest and have its assets taken. A better outcome is to not invest in the first place (and pursue other investment opportunities). The best outcome is to invest and not experience expropriation. From the host government's perspective, the worst outcome is to not receive the investment. But if the firm invests, then the host government will be tempted to take the investment.

If the host government faces no penalty from taking the foreign investment, then it cannot credibly commit to property rights. Early IPE scholars described such situations as an "obscolesing bargain" because favorable conditions that were promised to investors *ex ante* often were not realized *ex post* (Vernon 1971). These scholars argued that foreign firms should anticipate such situations and under-invest in developing states. This behavior is shown in Figure 9.1(a). However, if the host government could credibly commit to not take the investment, then both the firm and host state would benefit. Namely, if taking imposes large exogenous costs ($c>1$) on the host government, then investment will occur, as shown in Figure 9.1(b). Thus, large exogenous costs solve the commitment problem.

But how are such exogenous costs generated? One possible mechanism is reputation. If other investors believe that they too will have their assets taken, they may refrain from future investment, thereby harming the host government in the long term. For example, Jensen and Johnston (2011) argue that states with more natural resources can offer higher investment returns than states without them. Therefore, they argue that states with natural resources suffer a lower reputation cost from taking, and are accordingly more likely to expropriate. ↳

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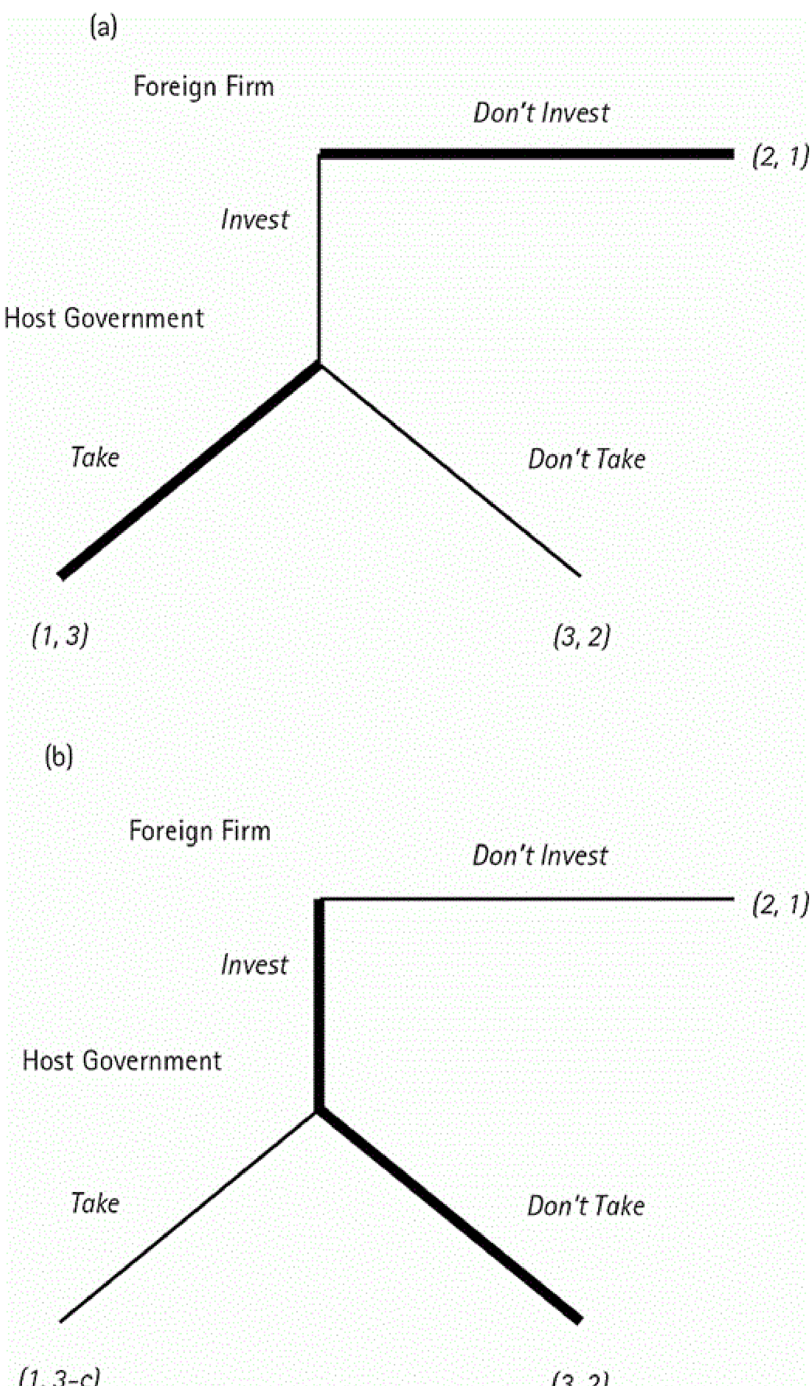

Figure 9.1. Foreign direct investment as a commitment problem. (a) No cost from taking the foreign investment; (b) High cost from taking the foreign investment (*c>1*).

An alternative (and complementary) argument is that domestic political institutions and voter accountability constrain the host government. This literature echoes earlier arguments about how democratic institutions secure property rights (Weingast 1997). For example, Albornoz et al. (2012) argue that governments consider the impact of expropriation on political constituencies. They argue that democracies are less likely to expropriate foreign investment in manufacturing than in land because manufacturing disruptions will have a broader impact on voters.

How can states better promote FDI? Many IPE scholars argue that international law solves commitment problems by raising the cost of expropriation. For example, Arias et al. (2018) argue that autocracies benefit more than democracies from joining international investment agreements because they face fewer domestic

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p. 136 constraints. They argue that such agreements ↳ will have a larger effect on government survival in office when states are more autocratic. Investment agreements can also induce domestic firms to form financial relationships with foreign firms to gain access to international legal protection (Betz and Pond 2019a).

International law may also increase reputation costs. International investment agreements create legal standards and allow investors to sue host states using investor-state dispute settlement (ISDS). These procedures coordinate beliefs about appropriate behavior and compensate investors when their rights are violated (Johns, Thrall, and Wellhausen 2020; Johns 2019). When an international tribunal finds a host state guilty of breaking international law, future investors can observe this public signal and adjust their own behavior. International law can therefore coordinate reputation costs for legal violations (Johns 2012).

Another IPE literature examines the impact of domestic policies on foreign investment. Many economists argue that high trade barriers stimulate "tariff-jumping," in which foreign-owned firms produce their goods in the country-of-sale to avoid tariffs (e.g., Brander and Spencer 1987). Trade restrictions can therefore promote FDI. Once such foreign firms invest, they have incentive to lobby their host government to maintain or even increase trade barriers (Blonigen and Ohno 1998). FDI investments can therefore cause the political interests of foreign firms to align with those of domestic firms. This literature largely overlooks commitment problems by examining states with strong domestic institutions, like the US.

Similarly, some IPE scholars have examined the impact of labor policy on FDI. Pinto and Pinto (2008) argue that changes between pro-labor and pro-capital governments affect the allocation of FDI across different industries. In particular, governments that support labor are more likely to encourage FDI, which benefits their domestic constituents (Pinto 2013). These models show that government ideology shapes FDI profitability, and hence the risk tolerance of foreign firms. Alternatively, Payton and Woo (2014) argue that stricter labor laws decrease new FDI.

Moving Forward

Most previous formal IPE research focuses on how host governments can solve commitment problems by building strong domestic institutions or joining international investment agreements. One path forward is to examine how foreign firms mitigate political risk through their business activities. Johns and Wellhausen (2016) argue that supply chains with local businesses protect the property rights of foreign firms. When a host government contemplates mistreatment of a foreign firm, it must consider the negative spillover effects on domestic firms. Supply chains thus link foreign and domestic firms through their economic activities, making them partners in the protection of capital. Johns and Wellhausen (2019) show that high entry costs also protect FDI by deterring the entry of new foreign firms into markets.

An alternative path is to examine FDI's impact on domestic politics in host states. For example, Bhagwati et al. (1987) argue that foreigners may invest in host states to buy political influence, rather than economic profit. More recently, Tomashevskiy (2015) argues that foreign portfolio investment increases political contributions for right-wing parties. Similarly, Tomashevskiy (2017) shows that FDI can prevent coups by giving autocrats p. 137 revenue to buy ↳ elite political support. These findings suggest that formal models of IPE could examine domestic politics outcomes from FDI.

Finally, future research could examine how FDI relates to broader financial liberalization. For example, FDI can only enter a state if a government first decides to open its market. Pond (2018a, 2018b) argues that the relationship between financial liberalization, expropriation, and taxation are interwoven and dependent on a state's regime-type. Additionally, international law affects whether foreign investors can repatriate FDI profits. While veto players constrain a government's decision about whether to take foreign-owned assets, Graham et al. (2018) argue that veto players do not necessarily constrain profit repatriation. A full understanding of FDI may therefore require more examination of capital restrictions.

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Stabilizing and Growing Economies

One final category is financial and monetary policies for stabilizing and growing economies. Many scholars of comparative political economy study topics like central bank independence and exchange rates, and many empirical IPE scholars examine financial and monetary policies. Yet relatively few formal IPE models examine these topics. After briefly describing the existing literature, we ask how future scholars can profitably use formal models to contribute to these topics.

Looking Back

Traditional macroeconomic theory suggests that monetary policy—which affects the supply of money in the domestic economy—has contradictory effects on employment and inflation. Economists argue that expanding the money supply increases employment, production, and spending while also increasing inflation. In contrast, contracting the money supply reduces inflation while also reducing employment, production, and spending. This relationship suggests a trade-off between inflation and unemployment: monetary policies to lower unemployment will also cause higher inflation.

Most research on monetary policy focuses on domestic influences. However, a few scholars have examined how international politics influences monetary policy. Suzuki (1994) constructs a formal model in which the monetary policy of one state affects the relative value of its currency, which affects inflation for its trading partners. Suzuki argues that these externalities in monetary policy create a Prisoners' Dilemma in which states defect when they restrict their money supply. He argues that economic interdependence (i.e., higher externalities) has mixed effects, increasing both the temptation to defect and benefit of cooperation.

A related IPE literature examines monetary integration—the adoption by multiple states of a single currency. To integrate, states must delegate their autonomy over monetary policy to an international organization. For example, in the 1990s, some European Union members decided to adopt the Euro as a common currency. Euro-adopting states gave the European Central Bank—an international organization—authority to decide whether to expand or contract the Euro supply. Both economists and political scientists debated this integration, ↳ with some scholars grounding their claims in formal models. For example, Alesina and Grilli (1993) questioned whether partial (or "multispeed") integration would lead to full integration over time. They argued that if states with similar policy preferences—such as prioritizing low inflation—integrated first, they would choose an international bureaucrat who reflected their preferences. When a new state contemplated joining the currency, it would have different preferences—such as prioritizing low unemployment. While this state might have benefited from monetary integration, it would have little impact on the international bureaucrat. Such a state might therefore keep its own currency so that it could maintain control over monetary policy. In contrast, Plümper and Troeger (2008) focused on integration's impact on non-members. They argued that monetary integration reduced autonomy for states outside the Eurozone that traded predominantly with states within the Eurozone. This research on monetary integration connects to a broader literature on multilateralism, which examines how the composition of international organizations drives their effectiveness and the selection of international bureaucrats (Gilligan and Johns 2012, 231–3; Johns 2007).

A related topic in IPE is capital mobility—how easily capital can be moved across borders. Some states allow capital to move freely, meaning that domestic firms can easily invest their money abroad and bring their profits home, while other states restrict mobility. Capital mobility is closely linked to monetary policy and exchange rates because large flows of capital into or out of an economy affects both exchange rates and a government's ability to shape employment and inflation. Capital mobility is also linked to international trade and investment because the free movement of capital is necessary for investment to occur, which can affect trade.

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High capital mobility makes it easier for foreign investors to enter a market to produce and sell their goods. Most IPE scholars therefore hypothesized that more foreign investment should make trade policy less effective in protecting domestic firms from foreign competition. Capital mobility, they believed, reduced pressure for trade protection. However, Hiscox (2004) uses a formal model to show that if capital is specific (e.g., can only be used in a particular industry, geographic location, etc.), then mobility and high tariffs can coexist. For example, if the US government makes it easier for foreign firms to open automobile factories in Alabama, then the price of local labor will increase. Higher labor costs may then cause an Alabama textile manufacturer to seek higher textile tariffs. Similarly, Pond (2018c) argues that labor unions will pressure governments for asymmetric policies on capital mobility. While capital inflows can increase employment and wages, capital outflows have the opposite effect. Therefore, Pond argues that states with stronger labor rights will have more inflow openness, but less outflow openness. Finally, Farías and Arruda de Almeida (2014) argue that capital mobility encourages illicit activities, like money laundering and tax evasion, which harm economic growth.

One final topic in IPE research is unearned international income, such as foreign aid and remittances. Political scientists have long argued that rich states can use foreign aid to buy policy concessions from poor states. Lundborg (1998) offered an early formal model of aid competition between the US and USSR. More recent research by Bueno de Mesquita and Smith (2007, 2009) examines how domestic politics in the recipient state changes how states use aid to purchase policy concessions. They then extend this model to examine competition between multiple donor states (Bueno de Mesquita and Smith 2016). Arena and Pechenkina (2016) apply these insights to show that foreign aid can prevent international conflict. p. 139 ↳ However, Smith (2008) argues that aid also prevents democratization by giving the recipient government resources to suppress internal dissent.

Similarly, many political economists have begun to examine how remittances—which are payments that workers who live abroad send back to their home state—affect domestic governance. Abdih et al. (2012) show that remittances provide household income that reduces pressure on a government to provide basic services. They argue that remittances therefore enable corruption. However, Desierto (2018) argues that political competition constrains whether governments can divert resources in this way. Similarly, Pfutze (2014) shows that remittances make individuals less reliant on government patronage, thereby increasing electoral competition.

Moving Forward

Few formal models of IPE examine economic stabilization and growth. This neglect is probably caused by the weak microfoundations for traditional macroeconomic theory. For example, many contemporary economists question the central assumption of monetary policy—that there is a trade-off between employment and inflation—based on policy responses to the Global Financial Crisis of 2008–2009. Until this debate is resolved, IPE scholars will probably contribute little to scholarship on monetary policy, monetary integration, and capital mobility.

The best path forward is probably to focus on topics with well-established economic microfoundations. IPE scholars can then focus on how international politics interacts with economics. For example, few formal theorists have considered the International Monetary Fund (IMF), which issues loans to states during financial crises. Dreher (2004) provides a compelling model in which an IMF loan is a costly signal to voters about government preferences. Similarly, Fang and Stone (2012) examine government decisions to delegate policy-making to IMF bureaucrats. Such papers demonstrate the value of using formal models to study the IMF.

Other neglected topics include sovereign debt—the issuance of loans to governments by private and public actors—and migration—the movement of individuals across borders. Ballard-Rosa (2020) provides a compelling argument about how conflicts between rural and urban areas affect sovereign debt repayments

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during economic crises. Similarly, Sellars (2019) offers a nuanced theory of how outward migration stymies political mobilization against a government. Her argument suggests that pro-emigration policies may help leaders to stymie internal dissent, an insight supported by Miller and Peters (2020).

Conclusion

These examples illustrate that formal models of IPE have been motivated by substantive research questions, rather than methodological debates.[4] Contemporary research is motivated by important substantive topics, like how states promote international trade, protect foreign investment, and stabilize and grow their economies. While this chapter has focused on the substantive arguments put forth in this literature, many scholars assess the plausibility of p. 140 ↳ their formal models using both quantitative and qualitative methods (Lorentzen, Fravel, and Paine 2017).

These examples also illustrate that relatively few IPE scholars have used formal models. What explains the relative paucity of formal models of IPE? When are formal models more or less useful for understanding IPE? Formal models are usually most useful when they address relatively rare or isolated interactions amongst a small number of elite actors. However, many structural aspects of IPE topics depart from these criteria.

First, most IPE interactions—such as the trade of goods and services, the investment of capital abroad, etc.—are infinitely repeated, rather than rare or isolated. Such infinitely repeated interactions generate major conceptual challenges for formal models because they generate an infinite number of equilibria. Consider the example of a host government that expropriates a foreign investment. A well-defined equilibrium would need to specify how all potential investors respond to all possible actions. Should an investor refuse to invest for one period? For two periods? Forever? What if she ignores the expropriation of another firm and invests anyway? All of these behaviors can be supported in an equilibrium. So how can formal theory help us to understanding observable behavior?

Second, economic markets are made up of a huge number of players, leading to complex strategic possibilities. Microeconomic theory usually simplifies these possibilities by assuming that firms are “price-takers,” meaning that each firm cannot change the overall market demand or price of goods. Yet in the modern global economy, large and powerful firms often do shape demand and prices, challenging many theoretical assumptions about how economic markets work. Additionally, large firms are not “politics-takers”—their actions affect the political environment in which they operate. Formal models of IPE must therefore balance competing assumptions about when individual economic actors can change a strategic environment, and when they cannot.

Finally, many IPE topics do not involve elite actors. Formal models almost always assume that actors can understand their strategic environment and anticipate the possible consequences of their actions. Yet many IPE topics, like political support for trade liberalization, involve mass publics with limited cognition about the consequences of their actions. For example, empirical research shows that voters understand little about the consequences of trade agreements for their own economic well-being (Blonigen 2011). As IPE research moves forward, formal models will be most useful when they address topics that avoid these three conceptual challenges.

Notes

1. In contrast, Kim, Londregan, and Ratkovic (2019) argue that autocracies balance the benefits of trade against the negative security externalities from interpersonal contacts enabled by trade. They argue that the depth of cooperation is less relevant for unstable autocracies than the initial decision about whether to open trade.

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2. Throughout this chapter, the terms “firm” and “investor” refer to individuals, businesses, partnerships, corporations, etc. that engage in business activities.

3. Simply purchasing company shares on a stock exchange would not qualify as FDI since stock-holders are typically not involved in the day-to-day management decisions of companies.

4. See the chapter by Jon C. W. Pevehouse and Leonard Seabrooke in this volume.

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