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RIDING THE WAVE OF TRADE:
EXPLAINING THE RISE OF LABOR REGULATION IN THE GOLDEN AGE OF GLOBALIZATION

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Riding the Wave of Trade: Explaining the Rise of Labor Regulation in the Golden Age of Globalization

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ABSTRACT

This paper challenges the received view that pins the adoption of labor regulation before 1914 on domestic forces, particularly the rises in income and voter turnout. Building on standard state-year event history analysis, we find that trade was also a main pathway of diffusion. Countries that traded with each other were more likely to establish a level playing field. The transmission mechanism was strongest in north-west Europe because intra-industry trade was significant in the region. When states failed to emulate the superior labor regulations of their most important trading partners, they left themselves vulnerable to embargos and sanctions on their exports. Threats of market loss were not credible in the New World because it exported mainly primary products and prices were fixed by world demand and supply. Domestic forces trumped international pressures to converge, with the result that labor regulation developed more slowly in regions of new settlement than in the European core.

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This paper brings a fresh coat to shopworn questions in economics and history: what explains the adoption of labor legislation across a large and disparate group of countries in a brief time span before 1914, and why did the Old World see more intervention than the New, a phenomenon that has persisted into the early twenty-first century? The standard explanation situates the origins of the regulatory state in the confluence of domestic factors that included the rise of per capita incomes, the extension of the vote, and the demands for social reform of labor organizations and pressure groups, even those led by employers.¹ But rich and poor countries alike, as well as the most and least democratic states, adopted similar labor laws in the decades before 1914. Our explanation is that domestic and external factors jointly mattered in the rapid diffusion of social policy.² We find that learning from neighbors, the emulation of internationally accepted social norms, and the coercion of smaller countries by larger and more powerful states contributed to the spread of regulation. The novelty of our approach lies, however, in the identification of trade flows between countries – the nuts and bolts of globalization – as a main pathway of diffusion.

Our argument can be summarized succinctly. Although domestic pressures gave rise to a latent appeal for reform, states acquiesced to these demands only when their major trading partners had previously passed comparable pieces of legislation.³ The outcome was a level playing field in labor laws across trading partners. The rise in trade lifted labor regulation upwards across a wide array of countries and in a short time span. In similar fashion, the gold standard diffused outwards from Britain along its trade routes, however in the case of labor standards no single hegemon lay behind policy adoption.⁴

The transmission of regulation from one country to another was initially strongest in north-west Europe because intra-industry trade was more important on the continent than elsewhere. When European states failed to emulate the superior labor regulations of their largest and most important trading partners, they left themselves vulnerable to embargos and sanctions on their exports. Firms would have little recourse but to dump their specialized goods at lower prices and

¹ The literature associates the rise of labor regulation with the origins of the welfare state. The determinants of labor standards and social spending were not, however, identical. See Section 2 below.

² For primers on the interdependence of domestic forces and foreign pressures, see Drezner, “Globalization and Policy”; Simmons, Dobbin, and Garret, *Global Diffusion*; Dobbin, Simmons, and Garrett, “Global Diffusion.”

³ A major trading partner is defined as another country with which a significant proportion of total trade – domestic and international – took place.

⁴ Meissner, “Explaining Diffusion.”

lose markets. In contrast, the New World exported mainly primary products. States were not bound to adopt labor laws of their major trading partners, since export prices were set by world demand and supply and the threat of market loss was not credible.

The robust complementarity between trade and regulation stands in opposition to the frequent claim, espoused in the late nineteenth century and echoed in the current wave of globalization, that competitive forces drive labor standards down in a race to the bottom.⁵ Bismarck, for one, asserted that “[a] normal workday could be established for Germany alone, if Germany were surrounded by a Chinese wall and were economically self-sufficient.”⁶ To prevent the unraveling of Germany’s safety net, Bismarck organized an international conference in Berlin in 1890 with the ostensible objective of fixing a level playing field. He exploited the inevitable failure of the conference to postpone the adoption of more advanced labor legislation intended to supplement his program of social entitlements.

Bismarck’s claim was off the mark. Our findings suggest that, even in the presence of weak international coordination to harmonize labor standards, decentralized forces promoted convergence in worker protection. This is not to imply that there was a race to the top because there is no evidence of one country leapfrogging another in the adoption of new and improved labor regulations. Rather, there was a rising tide in legislation that swept countries upwards together.

The methodology that drives our analysis is based on models of policy diffusion used most recently to study, for instance, the spread of labor laws, environmental rules, and health insurance across national and sub-national units.⁷ Building on standard state-year event history analysis, we focus on the adoption of policy between pairs (or dyads) of jurisdictions. This setup allows for a clear demarcation of the relative weight of internal determinants, like the extension of the vote, and external pressures, such as trade, on policy convergence for each pair of countries. To be clear, this approach is best suited to study the causes of policy adoption in an interconnected world, the key question we address in this paper. The study of adaptation – the effect of the new

⁵ Mazur, “Labor,” presents the race to the bottom view. Elliot and Freeman, *Can Labor Standards Improve*, and Kreuger, “International Labor Standards,” make the contrary claim. Bhagwati, “Demands,” and Srinivasan, “International Trade,” maintain that labor regulation and trade are independent. Empirical studies find mixed effects of labor standards on trade. Dehija and Samy, “Trade and Labor”; Flanagan, “International Labor Standards”; Rodrik, “Labor Standards”; Samy and Rodriguez, “Analyzing the Effects.”

⁶ Cited in Fallows, *Antecedents*, p. 91.

⁷ For examples, see Holzinger, Knill, and Thomas, “Environmental Policy”; Volden, “States.”

laws and regulations on labor market outcomes – requires a different methodology and is left for further research.

Labor regulation: The received views and basic data

At the most basic level, the widely accepted view is that labor laws were the stepchild of development, “the consequences,” Stanley Engerman wrote, “of higher national income, with accompanying changing preferences regarding work time and work arrangements as income rose.”⁸ In practice, the timing of adoption is commonly tied to domestic forces. In the popular power resources model, the leading protagonists are the spread of the franchise and the rise of organized labor, often captured by voter turnout.⁹ Considered the pioneer, Bismarck’s Germany legislated reforms to staunch support for the socialist party. In Britain after 1900, the Liberal Party ushered in a body of social and labor legislation that, while not breaking with the ideology of the Victorian state, reinterpreted it under the pressures of the “new mass political culture.”¹⁰ Belgium introduced limits on working time only after the upheavals of the late 1880s and in response to the rise in voter turnout, from 8 per cent of the male adult population to 85 per cent in the early 1890s. Comparative approaches have built on national histories, juxtaposing domestic factors of one country against another.¹¹ Alongside the franchise and the rise of labor, studies have considered the relative importance of legal codes, population size and age distributions, and ethnic and religious fragmentation.¹² The common denominator in this line of research is that the rise of regulation was a closed economy affair.

Curiously, while Peter Lindert and others have found some relation between income and voter turnout and social spending, the basic data reveal only a weak correspondence between these key determinants and the adoption of labor laws.¹³ Table 1 gives dates of introduction of five major pieces of legislation for a broad sample of Old and New World countries. Putting aside issues of availability, we have selected these regulations because they were representative of

⁸ Engerman, “History and Political Economy,” p. 60.

⁹ For critical reviews of the power resources model, see Baldwin, *Politics of Solidarity*; Iverson, *Capitalism*; Mares, *Politics of Risk*.

¹⁰ Harris, *Private Lives*, p. 193. On the link between mass politics and regulation in Belgium and the Netherlands, see Kossmann, *Low Countries*; for Sweden, Baldwin, *Politics of Solidarity*.

¹¹ The baseline comparative history of the welfare state remains Esping-Andersen, *Three Worlds*.

¹² A recent contribution is Alesina and Glaeser, *Fighting Poverty*.

¹³ Lindert, *Growing Public*; Aidt, Dutta, and Loukoianova, “Democracy.”

contemporary demands to protect children and women, to improve factory conditions, and to provide some form of compensation in case of accidents at the workplace.¹⁴ An appendix gives full details on the methods we used to construct the table. The last two columns give GDP per capita in 1900 and the average voter turnout in the preceding decade.

For Old World countries, the dispersion of income was large, as was voter turnout, but even the poorest and least democratic countries, Bulgaria, Italy, Portugal, Russia, and Spain, provided worker protection. In the New World, Canada was relatively wealthy and had large male electorate, but it was a laggard in worker protection compared to Europe. Indeed, after the revolution, Mexico had pretty much the same level of regulation.¹⁵ The pattern of adoption also varied in ways that are inconsistent with the income/voice model. There was no obvious leader. Germany was ahead in social entitlements, like accident compensation, but it introduced restrictions on women's work a decade later; the U.K. was an innovator in factory inspection and protection of women, but it was slow in introducing limits on child labor. For five countries, factory inspection preceded minimum age legislation; for six countries, the years of adoption were identical; for seven others, minimum age regulation preceded inspection.

A political economy framework provides another perspective on the adoption of legislation. In the U.S. during the Progressive Era, Price Fishback found a broad based movement of workers, employers, social reformers, religious groups, and elected officials – “a big tent” – in support of labor reform.¹⁶ Well-run factories would have supported adoption because they could have adapted easily to it, and because tougher regulation penalized competitors with inferior technology and that employed a younger and more female labor force. Leading employers' opposition to reform was rhetorical, based on the belief that legislation in one area was the thin end of the wedge, a slippery slope to more advanced and comprehensive legislation. Social reformers may have exaggerated the effects of legislation, but in order to prevent any backsliding they had no incentive to temper demands for further legislation. The decision to adopt, in other words, was tied to the perceived effects of the new laws which were usually minor. Because

¹⁴ These were core demands of the international movement to harmonize labor standards. Delevigne, “Pre-War History”; Fallows, *Antecedents*; Francke, “International Labour”; Lowe, “International Protection”; Potter, “Movement”; Shotwell, *Origins*.

¹⁵ Bortz, “Revolution,” pp. 674-83; Gómez-Galvarriato, *Impact of the Revolution*.

¹⁶ Fishback, “Progressive Era,” p. 300.

conflicts over reform were played out most often at the industry and local levels, it is not surprising that we find only a weak relation between macro variables and years of adoption.¹⁷

There are merits in this view, but it would appear to be most relevant to the U.S. The large number of sub-national units – we return to the role of federalism below – gave much leeway to local or sectoral interest groups, both for and against reform, that had more political clout than in countries where legislation had national coverage. Regardless of political structures, when push came to shove, the reform movement would have been weaker if it were not for the extension of the franchise. There would have been a lot of backsliding in Europe’s least democratic states where the movement was weak.¹⁸ The question remains: what forces explain how even the poorest and most autocratic countries came to adopt worker protection in the same decades as their more fortunate neighbors?

Figure 1 presents a competing perspective on the adoption of labor laws that showcases their diffusion over a short-time period. For three of the five pieces of legislation we have selected, the figures trace a classic S-shaped logistic curve, similar to that used to explain the diffusion of democracy and economic and social policies, from Keynesianism to neo-liberalism, over narrow time periods across a range of countries in the late twentieth century.¹⁹ Beginning with the hesitant moves in a handful of countries, most often the U.K. and Germany but not always, labor legislation before 1914 saw a rapid escalation in a group of smaller and neighboring countries, and a final period of leveling off in which latecomers in the periphery adopted legislation. The pattern of diffusion gives us pause to reconsider the widely perceived view that situates the rise of labor regulation as a chapter of national history only. Figure 1 suggests that this is best a partial view. International pressures must have been also part of the story.

To be sure, historians have not excluded the possibility that international pressures complemented domestic forces in the adoption of labor legislation. Historians have identified several conduits of diffusion or “the transfer of social technology”: evidence-based learning from experiences elsewhere, often the successful policies of larger neighbors, and the emulation of social

¹⁷ U.S. based studies, like Moehling’s “State Child Laws” are often cited to support the claim that legislation had small effects on labor market outcomes. For a survey, see Fishback, *Progressive Era*, and “Unfettered Markets.”

¹⁸ A recent contribution is Alesina and Glaeser, *Fighting Poverty*.

¹⁹ For case studies, see Simmons, Dobbin, and Garret, *Global Diffusion*.

norms with regard to the employment of women and children.²⁰ In the classic example of the demonstration effect, Lloyd George was full of praise for Germany's social programs after his visit to the continent in 1908, the year before he introduced unemployment insurance legislation in London.²¹ Independently of these exchanges, transatlantic "epistemic communities" emerged late in the century.²² They diffused information on the risks of industrial work and urban life and recommended policies to correct for these hazards. Founded by a group of European social activists in 1900, the International Association of Labour Legislation (IALL) coordinated research on working conditions and evolved rapidly into a well-organized pressure group for the harmonization of labor standards.²³ But the international movement had loftier goals. It propagated new ideas and values toward social policy, regardless if these policies had proven effective or not. The larger movement behind social reform was by no means Eurocentric. According to its historian Daniel Rodgers, blueprints flowed across the Atlantic in both directions, the reform ideals of Henry George even outpopularized those of the Webbs, let alone Marx.²⁴ Notwithstanding these pathways of diffusion, it remains unclear under what circumstances the new body of legislation was in fact adopted, especially in countries where local membership in communities in support of legislation was practically non-existent. An objective in the remainder of this paper is to identify the mechanisms of policy diffusion across a variety of countries, regardless of income levels and the size of voter turnout.

A closer look at the data

It may well be that the data in Table 1 cannot bear the weight of our argument. The many dimensions of labor laws make any international comparison hazardous. For some pieces of legislation, like minimum age laws, authorities fixed different cut off points. To ensure comparability across jurisdictions, we chose standards established at the international conference

²⁰ The phrase is from Hennock, *British Social Reform*, pp. 1-36. In the diffusion literature, learning most often refers to the adoption of successful policies elsewhere; emulation describes the adoption of policy whether it has proven to be effective or not. Dobbin, Simmons, and Garrett, "Global Diffusion."

²¹ Hennock, *British Social Reform*, pp. 149-51; Hay, *Origins of Liberal Welfare*, p. 51.

²² Rodgers, *Atlantic Crossings*; Van Daele, "Engineering Social Peace."

²³ Follows, *Antecedents*, pp. 120-43; Potter, "Movement." We evaluate the role of the IALL below.

²⁴ Rodgers, *Atlantic Crossings*, p. 70.

on labor legislation held in Berlin in 1890, the midpoint in our period of study.²⁵ In the case of child labor, the standard was 12 years of age. But Berlin did not cover all the details of legislation. In some countries, like Britain, children under 12 years were permitted to work half days if they attended school part-time before 1901. More generally, any international comparison of legislation is flawed because laws by their very nature were not identical across jurisdictions, owing to differences in coverage, application, and compliance. There was great variation across the sample in the size of manufacturing and mining sectors, the labor force participation of women and children, and the number of inspectors hired to enforce the laws and their duties. Many firms would have met working conditions set out by the law even before their adoption.

The federal structures of the New World and Germany and Switzerland complicate issues of comparability because sub-national authorities held responsibility for labor legislation. While Canadian provinces and Australian states adopted legislation within very short delays of their neighbors, there were substantial differences in dates of adoption and in the heterogeneity of the laws across U.S. jurisdictions.²⁶ To adjust for this, the table gives two dates for the introduction of each piece of legislation in the U.S. The first when ten states achieved the level set at Berlin, and a second, in parentheses, when the ten most populated states achieved this norm. The sizeable lags in dates of introduction using these two methods serve as a reminder of one of the possible hazards of the procedure we use.

Nonetheless, we stand by Table 1 as a meaningful point of departure to study adoption across countries. Our rebuttal to the potential weaknesses of our procedure is threefold. First, at the most practical level, when the U.S., the most troublesome country in our sample, is omitted in the analysis that follows, all our results go through.²⁷ We include the U.S. because the domestic and external determinants of diffusion we identify elsewhere also played out on the U.S. stage. Regardless of the yardstick invoked, the U.S. pattern of adoption had a strong resemblance with that of Canada – it was Australia that was the exception in regions of recent settlement.²⁸

²⁵ Sources on the Berlin standards are: Delevigne, “Pre-War History”; Fallows, *Antecedents*; Potter, “Movement”; Rolin-Jaequemin, “La conference de Berlin”; Shotwell, *Origins*. See the Appendix for details.

²⁶ On centralization of Swiss and German labor regulation, see Hennock, *Origin of the Welfare State*; for U.S. data at the sub-national level, see Fishback, Holmes, and Allen, “Lifting the Curse,” and Holmes, Fishback, and Allen, “Measuring.”

²⁷ In the remainder of the text and in the regression analysis, we refer to the dates of adoption of the first ten U.S. jurisdictions.

²⁸ For many social reformers, New Zealand provided the model of ‘cradle to grave’ social policy. Denoon, Mein-Smith, and Wyndham, *History of Australia*, pp. 232-38.

Second, many dimensions of the laws tended to converge after their passage and policy makers may have expected this development when they considered adoption. The same pressures promoting international diffusion of the basic laws may have also affected the various dimensions of these laws. Table 2 reports the number of factory inspectors per establishment, some specifics of restrictions on women's night work, age limits for children, and the actual contributions employers paid out for accident compensation (measured as a percentage of the wage bill). Despite different legal frameworks and administrative practices, and even before pressures to harmonize labor regulations that can be traced to the establishment of the International Labor Organization in 1919, dispersion across these dimensions was remarkably small – a testament to the forces of convergence in policy that we will describe below. There is only one obvious outlier in the table: the factory inspectorate in Italy was poorly staffed, a finding that is entirely consistent with contemporary observation and gives credence to the other values in the Table 2.²⁹

The third reason we stand by the years recorded Table 1 rests on our intention to use this information to study international diffusion, as opposed to how workers and firms responded and adapted to labor regulation. Certainly, economy-wide effects of legislation varied with the size and number of industries covered, the percentage of women and children employed, and the actual number of hours worked at the time of legislation. Any study of the effects of labor standards would need to control for the contours of local labor markets, although this is no simple task in a comparative study. In the interdependent world before 1914, however, states cared what other countries did or intended do in the area of regulation. While transnational organizations that spread new ideas about worker protection may have been limited to moral suasion, larger countries and major trading partners may have had more success dictating to smaller and more vulnerable states what type of legislation to adopt and when, regardless of local labor market conditions and how domestic forces lined up in support of or in opposition to regulation. The upshot was that domestic and foreign reform agendas did not always coincide, and under certain circumstances – and we consider this possibility below – states may have lost control of the policy agenda entirely. At some level adoption and adaptation were related, but Table 1 serves as a starting point because it gives the timetable of introduction we need to study policy diffusion.

²⁹ Even for Russia, Andrei Volodine, “Russian Factory Legislation”, found that inspectors were fair, diligent, and surprisingly numerous, thus confirming the earlier finding of Von Laue, “Factory Inspection.” There were good reasons for employers to comply if they had initiated the reforms in the first place as suggested by Fishback, “Progressive Era.” In Sweden, employers monitored labor standards to minimize worker mobility (Swenson, *Capitalists Against Markets*, p. 103). For a comparative study of enforcement in France and the U.K., see Fuchs, *Institutions, Values*.

The extent to which regulation affected labor market outcomes is a different question that requires another methodology and different data sets.³⁰

International trade and the rise of labor regulation

In today's global economy, the claim is, national authorities care what social and economic policies get adopted elsewhere because they want to keep their exports competitive and their home markets open to foreign investment. Of course, in the long term, certain regulations may increase the capabilities of local workforces, but policy makers are driven by short-run considerations, presuming that rivals vie for a fixed quantity of trade or investment. Case studies of corporate taxation rules and capital account liberalization have shown that policy makers in developed economies do indeed take changes in the competitive environment into consideration.³¹ In the developing world, market harmonization policies have loosened local controls. Everywhere, the argument goes, global competition has unleashed a race to the bottom in all aspects of regulation.

The late nineteenth century, the heyday of globalization, saw comparable competitive pressures. Contemporaries expressed concern that competition would undercut states' objectives to raise labor standards, even when backstopped by international commitments to level the playing field. The Swiss experience illustrates the constraints of economic interdependence on the timing and makeup of social reform. An early leader in labor legislation, Swiss cantons by mid-century were reluctant to make further reductions in the length of workday. The Factory Act Commission of Geneva in 1855 concluded that "[t]o regulate satisfactorily the conditions of competition among spinners, it would assuredly be necessary to generalize the legislation by international stipulations between Europe's industrial states."³² When the Swiss National Council deliberated on the first set of federal labor laws, it demurred because "the greatest drawback to factory legislation is the fact that if a state acts alone to improve working conditions, its industry may be endangered if its ability to struggle against foreign competition is impaired."

In the late 1870s the Swiss association of cotton textile employers petitioned the government to reject demands for more restrictive hours legislation and to loosen existing

³⁰ Drezner, "Globalization and Policy," makes a similar distinction between adoption and effectiveness of legislation. We discuss the relation between foreign pressures and the choice of domestic policy later in this paper.

³¹ Bartolini and Drazen, "Capital Account"; Swank, "Conditional Diffusion."

³² Citations in this paragraph are from Follows, *Antecedents*, pp. 98-99.

legislation instead because it wanted to preserve foreign and domestic markets.³³ The industry employed about 25 per cent of all workers in manufacturing and about 50 per cent of its production was exported, principally to its closest neighbors. At the same time, imports comprised about 20 per cent of Helvetic consumption of yarn and unfinished woven goods. The industry had no clear cost advantage. Its wage levels were the same as those in Germany and France, and because it had to import coal, it had narrower profit margins than its major competitors. Since its capital stock was old, it also ran its machinery at slower speeds than its rivals. With the value of cotton production about five per cent of GDP in 1883, the Swiss government heeded the demands of employers and did not move ahead with more protective legislation.

Others have found direct evidence of a race to the bottom. In 1891, Finland extended the length of the work day of minors (aged 12-14 years) to 8.5 hours from the level of 6.5 fixed in 1889, after its export firms found they had lost their competitive edge to their rivals.³⁴ In a similar vein, Jacob Hacker and Paul Pierson claimed that the ability of U.S. capitalists to divest locally and move lock-stock-and-barrel their enterprises across state borders stunted, if not delayed, the development of the country's safety net.³⁵

There is an opposing way to conceptualize the role of competition. Even in the short-term, trade may have acted as a pathway of diffusion for labor standards. Globalization, in this view, was a deterrent to and not the cause of a race to the bottom. The intuition follows from a model developed by Kyle Bagwell and Robert Staiger in which countries are motivated to secure market access, the combined shares of exports into foreign markets they have acquired and the imports into home markets they have come to accept.³⁶ A country that unilaterally raises its labor standards (this is equivalent to lowering tariffs) will find its domestic market more vulnerable to imports and its exports less competitive. In their model, Bagwell and Staiger empower the World Trade Organization to guarantee market access, penalizing trading partners that fail to reciprocate and raise their labor standards – or lower tariffs. In this way, initial market shares are restored and

³³ We thank Thomas David for recommending sources on the Swiss textile industry. For direct evidence of employers' resistance to legislation and for estimates of production values, see Humair, *Développement économique*, pp. 364-69. On import and export values, see Dudzik, *Innovation und Investition*, pp. 313-19; on wages, machinery speed, and coal prices, see Gruner, *Arbeitschaft*, p. 434; Besso, *Cotton Industry in Switzerland*, pp. 3-21, 89-92.

³⁴ Following the decision of Finland to loosen its standards, Sweden reciprocated and lengthened the working day of 13 year olds from 6 to 10 hours. Rahikainen, "Child Labour," pp. 55-57.

³⁵ Hacker and Pierson, "Business Power." For a critique, see Swenson, "Varieties."

³⁶ Bagwell and Staiger, *World Trading System*, and "Simple Economics." For an overview, see Brown, "Labor Standards."

labor standards are improved. Note there is no presumption that labor standards will be harmonized internationally, only that the newly established level of regulation will assure market access, thus giving leeway to states to raise standards as they saw fit.

In the absence of international oversight before 1914, states which had upgraded labor standards unilaterally exercised other options to ensure that trading partners reciprocated. They could threaten import restrictions on selected products of trading partners; fail to renew or abrogate commercial treaties and most-favored-nation clauses; or, in extreme cases, initiate trade wars to cut off competitors' entry into their markets.³⁷ These tactics may have proved sufficient in established and thick trading networks, like those in Europe where countries had repeated dealings with partners. In terms of Figure 1, these countries were grouped in the middle period. Sometimes the threat of market loss was not credible. Low degrees of integration led to reduced ability to enforce labor standards. There were also latecomers, the handful of countries at the tail of the logistic curve that did not play by the rules, or did not know them, and more likely to defect. International coercion was often necessary to bring these countries in line with the general rise in labor standards. Where multilateral agreements failed, countries would impose agreements on recalcitrant partners, as in the Franco-Italian labor accord of 1905 we discuss in a later section. Russia, where the state "stood ahead of public opinion of employers and workers," was exceptional.³⁸ It upgraded its labor standards to attract more foreign investment and in the anticipation of securing new export markets, but elsewhere countries would not initiate more intervention unless its major trading partners had done so.

The pattern of trade affected the decision of states to adopt partners' standards or to defect when threatened with the loss of market access. While international trade's signature in this period was exchange between the resource-abundant periphery and labor-abundant Old, trade in differentiated manufactured items was sizeable within the European core.³⁹ The distinction between inter- and intra-industry trade is relevant to the development of labor regulation because countries that sold differentiated goods were more susceptible to retaliation if they did not adopt

³⁷ Conybeare, *Trade Wars*; Lazer, "Free Trade Epidemic"; Pahre, "Most-Favored-Nation Clauses."

³⁸ Citation from Von Laue, "Factory Inspection," p. 348. By the late 1890s, Von Laue wrote, "Russia had a set of laws more enlightened than those of France or the United States." Similarly, Cambodia in 2001 improved its labor standards to attract foreign investment. Elliot and Freeman, *Can Labor Standards Improve*, p. 111.

³⁹ The shares of the inter-industry and intra-industry exchanges in world trade remained roughly stable between 1870 and 1914. Primary product trade comprised 60-65 per cent of world trade. For a full accounting, see Findlay and O'Rourke, *Power*, pp. 411-14. On intra-industry trade in Germany, see Brown, "Imperfect Competition"; for France, Messerlin and Becuwe, "Intra-industry Trade."

the standards of their chief markets. Even in the iconic world industry, cotton textile manufacture, Europe was a major outlet. Product specialization was based on machinery used, ring or mule spindles, the quality and treatment of cotton fibers, and the final dressing and preparation of goods.⁴⁰ Europe was a patchwork of preferential markets, a product of history, location, and marketing practices.

Table 3 presents a snapshot of trading networks in cotton and woolen textiles, and silk and lace manufacture, for several European countries in 1913.⁴¹ Column 12 gives the share of each country's exports of manufactured items sold in Europe; 65 per cent of the total value of production had European outlets. The last column gives country shares of all items exported to other European destinations, while the bottom row gives the share of imports. The U.K., Germany, the Netherlands, and, by this date, Switzerland had developed commercial networks to sell goods abroad, but for all exporters European destinations retained importance. Many producers were dependent on restricted outlets, for instance Belgium on France, and Italy on France and Germany, and found themselves exposed to threats of market loss. The damage would be large because new outlets could not always be found for differentiated items without dropping prices or incurring substantial marketing costs.⁴² Certainly, manufacturers could have modified or upgraded products to find new market niches, but this was a long-term strategy. Because of these pressures, countries had an incentive to adopt the labor standards of their major partners, with the result that market forces promoted convergence in labor policy and not a race to the bottom.

Again the Swiss experience is illustrative. Recall it was reluctant to push for labor reform, fearing the loss of export markets if it introduced labor legislation ahead of its major partners. Germany and France did introduce limits on women's work in 1891 and 1892. In the case of France, the rise in worker militancy beginning in 1889 was behind the new laws.⁴³ The National Assemblée also initiated a serious study of compulsory accident compensation in 1893. As elsewhere, opponents of the new measures claimed that French exporters and import-competing industries could not pass on the increased costs without loss of market share. The timing of the

⁴⁰ Saxonhouse and Wright, "Technological Evolution."

⁴¹ We thank John Brown for suggesting Kertesz's (*Textilindustrie*) study of intra-industry trade in 1913.

⁴² Large countries had the advantage of discriminating between home and foreign markets. Providing a textbook study of unfair trade practices, manufacturers in Vervier, the Belgian town renowned for the quality of its woolen goods, claimed that German firms, because of their large domestic market, priced exports lower than identical goods sold in their home market – a practice the Belgians called '*le dumping*'. Since their own domestic market was small, Vervier manufacturers were not able to reciprocate and cut prices instead. Mahaim, "La conference de Berne."

⁴³ Fuchs, *Institutions, Values*, p. 420. The parliamentary debates made reference to the effects of regulation on foreign markets. Fuchs, *op cit.*, p. 321; Jay, *Prot ection l gale*, pp. 315-18, and *Journ e de travail*.

reform debate was propitious. Rejecting France's offer of the minimum rates of the Méline tariff schedule and most-favored nation privileges in exchange for the lower rates of the new Swiss tariff, Switzerland initiated unexpectedly a trade war with its neighbor.⁴⁴ French exports to its neighbor fell by about 40 per cent between 1892 and 1894, a not insubstantial loss of market share for certain industries, but the conflict was relatively more costly for Switzerland.⁴⁵ It could not find alternative outlets for its major exports that it had sold to France, high-end cotton textiles and silks, clocks, and specialty cheeses. The development of its overseas export markets occurred later. Switzerland's shipments to France fell by about 30 per cent between 1892 and 1894; its total exports by slightly less, about 18 per cent, indicating incomplete diversion of goods to new markets.

The French had an incentive to prolong the conflict since it provided the import-competing sector a respite to adjust to the new labor reforms. It was the Swiss who backed down first. Even before the end of the trade war in 1894, Switzerland consented to restrictions on night work and an 11 hour working day for women, thereby leveling the playing field with its major trading partners, France and Germany. To be sure, there was a domestic coalition linking the end of the trade war and better labor regulations. Liberal elites, manufacturers with rising inventories, and still others dependent on foreign supplies, such as weavers who imported French yarns, sought common ground with the newly formed socialist party whose followers demanded lower prices of consumer goods. Labor support for free trade was conditional, however, on improved factory legislation. But the trade war was the catalyst behind the coalition.⁴⁶

Large countries too felt the pressures of conforming to the standards of trading partners. Belgium was France's second most important market and the latter's decision to restrict night work of women actually followed that of its smaller trading partner. Groups of countries also combined forces to pressure larger rivals. Britain had been reluctant to raise the minimum age of child labor, believing that its young workforce was a source of comparative advantage for its textile industry. In the late 1890s, however, continental employers and union representatives

⁴⁴ Conybeare, *Trade Wars*, pp. 179-203; Humair, *Développement économique*, pp. 595-618; Smith, *Tariff Reform*, pp. 222-23.

⁴⁵ In 1891, France took 18.6 per cent of all Swiss exports and Switzerland received only 6.0 per cent of French exports. Between 1892 and 1894, French total exports fell by 6.9 per cent. Trade data from Mitchell, *Historical Statistics*, pp. 545, 595; Conybeare, *Trade Wars*, p. 191.

⁴⁶ On the end of the trade war and domestic politics, see Humair, *Développement économique*, pp. 19-24. The lib-lab coalition in support to free trade and improved factory legislation was found elsewhere in Europe. For Belgium, see Huberman, "Ticket."

visited Lancashire, insisting that the British comply with standards elsewhere. Britain's share of European markets was contracting and manufacturers wanted to hold on to whatever they could. In 1901, the U.K. adopted the minimum age standard.⁴⁷

The dynamic was different in the New World where domestic issues trumped external pressures. Regions of recent settlement exported foods and raw materials whose prices were fixed in world markets. The pressure to comply with labor standards of major trading partners was less keen, because countries could shift outlets without loss. Canada's wheat exports did not contract when Germany launched a trade war between 1903 and 1910 to protest Ottawa's preferential agreement with London; in fact it was the U.K. that feared collateral damage.⁴⁸ Unlike other New World countries, the U.S., by the end of the period, exported manufactured goods, although these were mainly standardized items.⁴⁹ Anyway, international trade played a small role in total production in the U.S. The upshot was that the New World was insulated from trade pressures to emulate the European model. Trade patterns reinforced the primacy of domestic factors in areas of recent settlement. Unlike Europe, there was a structural disconnect in the New World between commercial access negotiated at the national level and labor policy set by the sub-national units. In some regions, like Australia, labor power was strong enough to use the ballot box to see through legislation in key states, while it was difficult to mount the same force in Canada or the U.S. The aphorism that all politics is local was well suited to the New World.

In the remainder of this paper, we examine more closely the mechanisms of diffusion. In the next section, we introduce the baseline econometric model that discriminates between domestic and international pressures behind the decision to adopt labor standards in Old and New Worlds. We then examine bilateral labor accords and the international movement to harmonize labor standards as vehicles of policy diffusion. Finally, we consider the policies countries favored when forced to meet domestic and external pressures.

The decision to adopt: Testing for domestic and external forces

The empirical model

⁴⁷ This episode is recounted in the *Cotton Factory Times*, 5 May 1900.

⁴⁸ On the Canadian-German trade war, see Trentmann, *Free Trade Nation*, pp. 137-40; Conybeare, *Trade Wars*, p. 182. Saul, *Studies*, p. 185. There was no deviation in the trend of Canadian wheat exports. Urquhart and Buckley, *Historical Statistics*. The U.K. feared losing access to countries that had MFN agreements with Germany.

⁴⁹ Sabel and Zeitlin, "Historical Alternatives."

To study policy convergence we implement a directed dyad-year event history analysis.⁵⁰ The unit of analysis is the country-pair-year (or dyad-year). The central variable we seek to explain is whether a country A converges to the labor standards already adopted by another country B. Convergence or emulation does not imply that policy makers are attempting to mimic exactly the other country in the dyad. The dichotomous dependent variable takes on the value one if country A adopts *at least one* out the five labor standards (Table 1), given that B had already adopted that (those) particular standard(s) prior to the current year.⁵¹ The dependent variable is equal to zero if B adopted at least one of the standards previously and A did not move to adopt any of the standards already chosen by B.⁵² The formulation allows for the broadest menu of choice for country A. We make no presumption of unique mapping or emulation from, say minimum age legislation in B to A, leaving country A to adopt restrictions on women's work as its preferred form of emulation. It has the leeway to choose the least cost policy. Domestic and external determinants will ultimately determine the type of legislation that A adopts. When A converges to *all* standards in B, this particular dyad is dropped from the sample.

In principle, a pair of countries can be present up to two times in each year since the order in which each country adopted labor standards may not have been the same in all cases.⁵³ We cannot presume that policymakers in Italy have the same view of U.K. that those in the U.K. have of Italy. We found that just over 50 per cent of the 'emulations' in the data are associated with convergence to a standard that was previously adopted by five or fewer countries. Considerable variation in the data is coming from fairly close emulation of a number of specific countries rather than imitation of the entire world. This is most likely to occur when convergence is by design and not coincidental, but we have no evidence on the exact country of reference for policy makers.

The directed dyad approach has several benefits compared to the standard country-year event history models. The power of demonstration may be the root cause why A adopts a minimum age for child labor when B already had such a policy, but convergence may also arise because the underlying determinants of adoption in the pair of countries are similar. In the dyadic

⁵⁰ For examples, see Holzinger, Knill, and Thomas, "Environmental Policy"; Volden, "States."

⁵¹ There are no cases where a country adopts and then gives up a particular standard.

⁵² This procedure avoids jointly estimating the probability that country A imitates B *and* the probability of B adopting a labor standard. Boehmke, "Policy Evaluation."

⁵³ We see no obvious patterns in the data on the order of decision making.

approach we are able to control explicitly for direct interaction effects between neighbors or trading partners and common features of these countries. This is an improvement over the typical event history model in which external factors are usually weighted-averages of arbitrarily defined ‘neighbors’ or other countries that comprise the reference group. Finally, our setup distinguishes between the determinants of policy leadership versus following. If we find that the marginal impact of country A’s size is negative using the dyadic approach, it would suggest that larger countries are less likely to imitate.

Our control variables consist of external and internal determinants of labor standards. To recapitulate, trade may have had opposing effects. On the one hand, it may have precipitated convergence as countries sought to keep up with levels of regulation of major trading partners; in some cases, the forces of trade may have operated as a substitute for domestic pressures, like the extension of the vote. On the other hand, international competition may have unleashed a race to the bottom, and, in Bismarck’s phrase, the adoption of labor standards would have been painless only if economies were sealed off by a “Chinese wall.” In the extreme case, autarchy, domestic demands only mattered. In a weaker version of this line of reasoning and in the context of the period’s politics, the lower the proportion of income derived from production of traded goods, the more likely a country would have adopted labor regulation.⁵⁴

We control for exposure to trade at the bilateral level using a measure of the tariff equivalent of all barriers to trade, calculated by David Jacks, Christopher Meissner, and David Novy, as a control for (the lack of) trade integration.⁵⁵ This is measured as

$$(1) \quad \tau_{AB} = \left(\frac{x_{AA}x_{BB}}{x_{AB}x_{BA}} \right)^{\frac{1}{2(\sigma-1)}} - 1$$

The variables x_{AA} and x_{BB} are proxies for *intra*-national trade, or domestic absorption, and x_{AB} and x_{BA} represent total exports from country A to country B and exports from B to A. The parameter σ is the elasticity of substitution between domestic and foreign goods and is assumed to be equal to

⁵⁴ The ultimate outcome might not have been a race to the bottom amongst all countries, but a ‘separating equilibrium’ where certain countries held off from adopting labor standards due to their greater exposure to international trade, and another set of countries selected policies based on their overriding domestic preferences.

⁵⁵ The trade cost term is related to the (bilateral) trade share of GDP, but unlike this measure of openness it is derived explicitly from trade theory. See Jacks, Meissner, and Novy, “Trade Costs.” These authors estimate that between 1870 and 1913 the average decline in international trade, relative to domestic, costs was 23 per cent.

11.⁵⁶ The trade cost term can be interpreted as the extent to which international trade is more costly than domestic trade. In a race to the bottom, this term has a positive coefficient. We would expect a negative coefficient if greater trade between partners led to a greater probability that A adopted B's policy.

The baseline models include controls for size and wealth effects (the logarithms of GDP and population) for countries A and B. Central to Engerman's claim of the primacy of domestic factors is that countries with high incomes per capita had greater demand for labor standards. In this case, we should see a positive marginal effect of GDP for a constant level of population. Larger countries faced weaker external pressures. They may have been less prone to imitate neighbors because they naturally traded less and were more shielded from international competition. If size mattered in this way, we would find that a proportional increase in GDP and population (an increase in size) led to a lower likelihood of adoption. Real GDP and population of country B seek to identify the role of learning in policy diffusion: was A more willing to adopt if B was big and rich?

The other determinants follow from our previous discussion. Voter turnout is a proxy for domestic pressure groups of workers, social reformers, and employers that would have been toothless without broad based support at the ballot box, or what is commonly referred to as 'mass politics.' To check whether the process of diffusion was different across regions, a dummy variable indicates whether country A is in the New World or not. We have also included an interaction variable between the presence of a New World country and voter turnout. This variable allows us to disentangle the roles of factor endowments and political economy factors behind the adoption of labor regulation. The decision to adopt might have also been dependent on the number of labor standards already in place, which we have measured by the total number of labor standards (out of the five considered) that A and B shared in the year prior to adoption.

The sample in the baseline regression includes information on adoption of five standards for 18 countries across a maximum of 17 partners and the 33 years from 1881 to 1913. Countries included in the sample and the number of partners (not partner years) with available observations in parentheses are: Argentina (14), Australia (6), Austria-Hungary (5), Belgium (14), Canada

⁵⁶ The level of trade costs depends on the elasticity of substitution, but the variance across countries for a given elasticity of substitution is roughly constant. In other words, this parameter is a scaling factor. There is no evidence to suggest the elasticity of substitution varied across countries in the aggregate, and evidence for more recent periods suggests these preference parameters are constant over time.

(12), Denmark (11), France (6), Germany (3), Italy (10), the Netherlands (10), Norway (13), Portugal 15), Russia (13), Spain (14), Sweden (11), Switzerland (10), United Kingdom (9), and the United States (13). The exact number of observations per country depends on how long it took to converge on a partner's standard, the number of standards adopted by a partner, and the partner's timing of adoption.

Results

Table 4 reports the results of a series of logit regressions for the policy convergence model. We report average marginal effects. Standard errors are clustered at the country pair level (regardless of whether a country is located in position A or B) to correct for any bias in the standard errors arising from arbitrary serial correlation over time. In unreported specifications we clustered standard errors over all country A observations in a particular year to account for correlation within years across a country's decision to adopt its partners standards.⁵⁷ Column 1 reports results from a baseline specification. In line with our previous discussion, both internal and external pressures mattered.

The trade cost coefficient is negative and significant. Pairs of countries highly integrated via international trade were more likely to converge to or emulate the labor standards of their partners. Contrary to oft-made claims about the effects of competition – the decline in trade costs – on social and labor policy, the late nineteenth century saw no evidence of a race to the bottom. In the baseline line model, trade was a vehicle of convergence. There is little impact of country B's GDP, country B's population, or country B's electoral turnout on A's decisions. The effects of Lloyd George's visit to Germany on British social policy cannot be generalized to the broader sample.

Domestic and international factors operated in concert to raise labor standards. Wealthier populations were more likely to emulate. Holding population constant, GDP of country A had a positive and statistically significant marginal effect. Overall, size did not seem to matter; while there is a negative partial effect of log population of A, the marginal impact of GDP is of equal magnitude and of the opposite sign. Proportionally raising both GDP and population did not lead

⁵⁷ Using this technique, the standard errors of country A's GDP, population, and turnout variables proved to be statistically insignificant. Given the small number of observations, however, these clustered standard errors may be biased themselves.

to an increase in the probability of convergence. Combined, the evidence suggests that large countries did not lead. Smaller countries were not necessarily followers either. If anything, our evidence finds that richer populations were more likely to follow than to lead. The British delay in implementing minimum age legislation we described above was in this respect not atypical.

We find that greater political voice in country A promoted convergence. There were differences across regions, however. New World countries were less prone to converge, but sufficiently high levels of voter turnout offset obstacles to reform owing to these countries' specialization in primary products. We return to a discussion of the determinants of policy convergence in Old and New Worlds below.

Finally, countries with relatively weaker sets of labor laws were more likely to initiate convergence. The negative sign on the lagged number of shared standards has, at least, two interpretations. Stragglers, like Russia, may have wanted to signal to residents and foreigners their willingness to move toward the new international norm of greater regulation, albeit at a slower pace; alternatively, they may have adopted legislation later than others because the cost of doing so was less.

In the remaining columns we explore the robustness of these findings. In column 2 we include as explanatory variables the absolute differences in the logarithm of each nation's per capita GDP and turnout percentages. Did countries that shared similar fundamentals adopt comparable regulatory outcomes? The answer is mixed. Larger differences in GDP per capita exerted downward pressure on the probability of converging on a partner's standard. Turnout differences had no statistically perceptible effect on the probability of adoption, although the marginal effect is negative. Column 2 suggests that, *ceteris paribus*, 'clubs' did emerge – countries at similar levels of development were prone to put in place regulations that resembled each other's. Nevertheless, even after controlling for the pull of convergence clubs, international forces nudged countries away from their peers. Trade integration is positively and significantly associated with convergence.

In column 3 we ask whether neighborhood effects precipitated imitation. There is no evidence that proximity raised the propensity to converge. We include an indicator for whether the pair shared a border and the logarithm of bilateral distance (in kilometers) between capitals. A common border actually exerts pressure to diverge, and although proximity between capitals raises the chances of adopting a similar labor standard its effect is not statistically significant.

Geographic controls are often used as proxies for factors affecting trade integration, but they do not eliminate the positive impact of trade as a channel of emulation – in column 3 and across all remaining columns, apart from the New World sample, the trade cost coefficient is negative, statistically significant, and of comparable magnitude.

Columns 4 and 5 compare Old and New World only samples and the baseline estimates. For European country pairs, the results are in line with those in column 1, with the exception of turnout which is positive but not statistically significant. Voice in Europe was not a decisive pathway of emulation. Trade and income were the catalysts behind convergence on the continent. The dynamic was different in the New World. Column 5 reports regression results for all pairs where country A is a New World country only. In stark contrast with other specifications, the trade cost term is positive, but not significant; voter turnout does however have a statistically significant marginal effect in the New World. Voice was the main channel of policy diffusion in the New World. Recall that Rodgers claimed that blueprints for labor reform flowed between continents, but trade does not appear to have been the conduit of transmission to the Americas and Australia. In line with our previous discussion, local forces dominated global pressures in the spread of regulatory state in regions of new settlement. We also find that, unlike the Old World, states in the New World were more likely to follow the lead of wealthier countries.

Column 6 presents results from a fixed effects logit or a conditional logit. This controls for (time-invariant) unobservable heterogeneity at the level of country A. As expected, GDP and population terms, which are strongly persistent and presumably highly correlated with the country fixed effects, are estimated to have little relationship with the adoption of labor standards. Turnout in A is positively associated with emulation (p -value = 0.19). Trade integration and less similarity in labor standards in the prior year are positively associated with emulation, both remaining statistically significant as before. These determinants are resilient across specifications, suggesting, as in Figure 1, a rising tide in the adoption of labor standards as nations sought to keep up with the levels of regulation provided by trading partners.

Bringing up the latecomers

Convergence was strongest for pairs of countries with well established trading relations. For a handful of European countries, especially laggards and where domestic forces in support of

reform were weak, international pressures were brought to bear. The quinquennial controls suggest a higher propensity toward emulation later in the period, a change in trend that coincides with the emergence of a vocal international movement for harmonization in labor standards.⁵⁸ The Belgians along with the Swiss were key players in founding the IALL in Paris in 1900, because, individually, small states had less leverage to coerce trading rivals than larger countries. While strict national interests may have mattered, the IALL also championed new ideas of social reform that ‘were in the air’. The powers of the IALL were limited, however, depending on moral suasion or soft coercion, and there was no procedure in place to ensure ratification. Still attendance at the conferences grew in the decade before the outbreak of war.⁵⁹ Most European governments in our sample sent delegates to these meetings – the U.S. sent an observer to the first meeting – and although they were not completely persuaded by the reformers, they returned more responsive to follow guidelines for minimum labor standards proposed by the IALL. In the decade after the creation of the IALL, Italy, Portugal, Spain, and Sweden, all latecomers to the reform movement, prohibited night work of women.

Column 7 in Table 4 tests for the role of international coercion more formally. We include dummy variables for whether both countries A and B attended IALL conferences in 1901 (Basel), 1905 (Bern), and 1913 (Zurich and Bern). We find that attendance in 1905 and 1913 are both positively related to a higher likelihood of emulation, although attendance in 1913 is imprecisely estimated and the partial effect is not statistically significant. The first meeting had no effect on convergence, perhaps testimony to the fact that it took time for countries to be persuaded of the new social norm that lay behind the adoption of labor regulation.

There were substantial transaction costs involved in negotiating multilateral agreements. Alternatively, states sought out bilateral labor accords to upgrade labor regulations of trading partners, predominately latecomers to the transnational social reform movement that faced weak domestic pressures to legislate improved working conditions. The treaties were early versions of the labor and environmental clauses and of bilateral conditionality integral to twentieth century regional trade agreements, like the North American Free Trade Agreement. Some examples are given in Table 5. The early bilateral accords, which assured the reciprocal treatment of native and foreign workers, were initially conceived as backstops against a potential race to the bottom in

⁵⁸ We leave unreported the time dummies. 1910-1913 is treated as the last five-year period; 1880-1884 is the omitted category. Estimates available upon request.

⁵⁹ Number of countries: Basle 1901, 8; Bern 1905, 14; Zurich and Bern 1913, 16. Follows, *Antecedents*.

labor standards. After 1904, the labor agreements served as well to strengthen bilateral trade. Many of the signatories had previously negotiated most favored nation treaties, as indicated in the last column of the table.⁶⁰ The spike in labor accords in the years after 1904 coincided with the clustering of MFN treaties. The link between labor and commercial treaties reinforced the stepwise movement of adoption traced in Figure 1. Countries would raise levels of regulation if their trading partners had done so. But the added incentive was that as A raised its labor regulation to the level of B, it gained market access in countries that had MFN arrangements with the latter.

The Franco-Italian labor treaty of 1904 was typical of these arrangements, but it also represented an attempt by a larger country to coerce a smaller trading partner and ensure a level playing field.⁶¹ France and Italy had engaged in a trade war that began in 1886 and effectively lasted into the early 1900s. The war was especially hard on Italy because of its dependence on France for its exports of specialty goods.⁶² While Italian silk was a relatively standardized item and producers readily found markets in Switzerland, its specialty wine producers were less fortunate and they had to dump their stock.⁶³ As part of the agreement that ended the trade war, France demanded that Italy raise its labor standards to international norms, thus guaranteeing its producers greater market access. In exchange, France agreed to give Italian migrant workers in the Hexagon the same level of benefits that French workers received. Italy was not opposed to the French demands. Its history of labor legislation was recent and, because the percentage of eligible voters was low, the liberal government could exploit the French initiative to go around the vested interests of the Italian business elite who opposed labor reform.⁶⁴ The net result was that labor costs increased relatively more in Italy. Figure 2 traces France's success in securing market

⁶⁰ We are grateful to Robert Pahre for providing us access to his commercial treaty data set. Many of the accords were unconditional MFNs. See Pahre, "Most Favored Nation Clauses." Irwin, ("Multilateral and Bilateral Trade," p. 454), referred to MFN agreements as "progressive bilateralism" because they promoted multi-party accords and did not divert trade. The clustering of bilateral labor accords fits this model.

⁶¹ For histories of the Franco-Italian labor accord, see Fontaine, "Review"; Lowe, *International Protection*; Follows, *Antecedents*, p. 170.

⁶² In the ten-year period after 1887, Italian exports fell by 57 per cent, while French exports to Italy fell by 21 per cent. Italian exports to France were 40 per cent of Italy's total exports in 1887; French exports to Italy less than 6 per cent of its total exports. Connybeare, *Trade Wars*, p. 185.

⁶³ Lazer, "Free Trade," p. 453.

⁶⁴ Earlier in the decade, the Italian (liberal) Prime Minister Giovanni Giolitti had invited socialists into his cabinet. In the years before the accord, the minimum working age was raised to 12 years, and the employment of women on night shifts was controlled (as opposed to banned) with the introduction the maximum working day of 12 hours for women, but Giolitti guarded against making further improvements because workers were underrepresented in Parliament, universal suffrage being granted only in 1911. Zamagni, *Economic History*, p. 117.

access. French exports rose by about 36 per cent the five years before the 1904 agreement, but they increased by 61 per cent in the five years after. Italy was less fortunate. Its exports to France showed no growth from 1899 to 1904, and about 20 per cent after the agreement.⁶⁵

Were all labor standards equal?

In this section we extend our analysis of convergence and examine the type of legislation adopted in country A in response to pressures from B. Recall that in our framework we make no presumption that convergence implied that countries pursued identical pieces of legislation. It remained possible that A chose from a different policy agenda to meet domestic concerns. If widespread, this practice would have led to diverse labor standards across countries, at the same time as the overall level of regulation rose. Dani Rodrik claimed that a similar process was critical to the rise of labor regulation in the period after 1945, because domestic concerns were kept in the forefront of the international movement to harmonize labor standards.⁶⁶

We classify labor standards into high and low cost policies based on evidence presented at the Bern meeting of the IALL in 1905.⁶⁷ In these discussions, perceptions mattered. Initiatives restricting the working hours of women and children were held to be high cost legislation because of its supposed incidence on firms; factory inspection laws and mandatory accident compensation funds were considered low cost. According to one delegate, at least 1,350,000 women in Europe would be affected by the curb on night work and that the restriction would reduce their workday by 2.5 hours.⁶⁸ Assuming that women comprised 60 per cent of the labor force in textiles, and men's hours were unaffected, this translates into a potential reduction of labor input in the industry of about 10 per cent.⁶⁹ With regard to the costs of legislation, the Belgian representatives

⁶⁵ Trade statistics from *Annuaire statistique*, various years.

⁶⁶ Rodrik, *One Economics*, p. 228.

⁶⁷ For a summary, see Mahaim, "La conference de Berne," pp. 14-15.

⁶⁸ To fix ideas about proportions, the U.K. employed about 2 million women in manufacturing in 1901, and about 320,000 workers in textiles in 1911. Bairoch, *Population active*, p. 98.

⁶⁹ This is a lower bound estimate. Men may have reduced their hours alongside women since their work was complementary. The 60 per cent figure is for the U.K. from Boot and MainDonald, "New Estimates." Hours of work from Huberman, "Working Hours." Comparative figures on female employment in textiles is difficult to assemble for the period before 1914, but after the war the ILO surveyed various national industries. Women employed as a percentage of the gainfully employed in the cotton textile industry were (the figure in brackets is textile employment as a percentage of the total gainfully employed): Germany 52.3 (5.1); Austria 58.4 (4.6); Belgium 48.5 (12.3); Spain 59.7 (12.2); France 59.8 (7.0); Great Britain 59.8 (12.7); Italy 77.7 (14.8); Netherlands 34.2 (3.3); Portugal 67.8 (2.2); Sweden 64.4 (4.6); Switzerland 59.5 (15.2). Source: ILO, *World Textile Industry*.

asked knowingly: “How is it possible to argue that the restriction of night work would not raise prices?”⁷⁰ As evidenced by the number of inspectors states had actually hired, and despite pressures of convergence, delegates considered factory inspection a less costly alternative, as was accident compensation whose burden was shared by workers, firms, and governments.⁷¹

Faced by these choices, policy makers confronted a dilemma. Consider the likelihood that states imposed standards as part of a political bargain or for other domestic reasons. High cost standards may have gained them political advantage, but could have been perceived to do damage to the competitiveness of the economy. Less costly policies that had more symbolic than real effects were an option. While richer countries might be able to better afford more stringent standards, a wider range of countries could more easily adopt low cost standards. At the same time, a smaller country might appease – at least temporarily – a trading partner if it, as a minimum, implemented a locally determined standard as opposed to mimicking the partner’s policy agenda.

We employ a multinomial logit approach to study the possibility that the determinants of convergence varied with the type of labor standard adopted. We create three categories to capture country A’s potential responses. Category 0 represents the outcome where there was no convergence between countries A and B. Category 1 designates that country A adopted limits on women and children’s work (restrictions on women’s maximum hours and prohibition of night work, and minimum age laws for children) to emulate B’s corresponding legislation. The third category (effectively category 2) indicates that country A adopted factory inspection or accident compensation when B had these policies in place. In our baseline sample of 2,725 country-pair years, there are 90 instances of emulation in category 1, and 160 in category 2. The list of explanatory variables is the same as in column 1 of Table 4, but we now include two indicators for lagged values of convergence. The first indicates the number of category 1 standards shared in the previous year; the other indicates the number of category 2 standards shared.

For category 1, the key determinants of policy convergence in Table 6 column 1 are similar, but not identical, to the baseline results of Table 4. Domestic forces trumped external pressures in the adoption of costly regulation. Unlike Table 4, at least for costlier standards, richer countries served as models and poorer countries as laggards. Also, as per capita GDP of

⁷⁰ “Et comment soutenir que l’interdiction du travail de nuit des femmes n’augmenterait pas le prix de revient?” Mahaim, “La conference de Berne,” p. 16.

⁷¹ See Table 2 for factory inspection and employers’ expenditures on accident compensation.

country A rose, it was more likely to implement limits on women and children's work and converge to country B. Larger economies were somewhat less likely to emulate, perhaps because they were leaders.

Higher turnout encouraged adoption of category 1 standards, and, as before, New World countries were less likely to implement high cost standards unless they were sufficiently democratic. In line with previous results, adoption was less likely the greater the degree of convergence already achieved. Still, countries appear to have acted sequentially, adopting one category of legislation before moving on to the other set as conditions became more opportune. Emulation was more likely the higher the level of convergence in the opposite group of standards.⁷²

In stark contrast to Table 4, the partial effect of trade integration for category 1 standards is not statistically significant. Although the point estimate is negative as before, trade pressures were less important for these types of standards. In a separate, but unreported multinomial estimation that included bilateral distance and a border dummy, these variables were also not statistically significant. Again, domestic forces overwhelmed external pressures in the adoption of costly regulation.

All standards were not alike. We find opposite results for policies that were perceived to impose a smaller shock on an economy's cost structure. There are significant differences in the determinants of convergence between high and low cost standards. Country A's GDP per capita (an increase in GDP for a fixed population) has the opposite sign from that for high cost standards in column 1. Richer countries were *less* likely to emulate less costly standards. Alternatively, poorer countries were *more* prone to emulate less costly standards. Proportional rises in GDP and population (or size) held back convergence, implying that larger countries were less likely to adopt category 2 standards. Turnout in country A is no longer statistically significant. Similar to previous findings, the process of emulation was slower in the New World, although a higher voter turnout ratio accelerated the process. Regarding the time path in the diffusion of standards, the (unreported) period dummies for category 2 variables grow larger over time and are statistically significant, while none of the period dummies for category 1 are statistically important, though the point estimates of the average partial effects appear to fall over time.

⁷² In other (unreported) regressions, emulation was more likely if the country pair had similar per capita incomes.

Conspicuously, trade was a pathway of diffusion for less costly labor standards only.⁷³ States did not mimic *holis bolis* the policy agenda of neighbors or trading partners, but were selective in their choice of policy based on internal and external constraints. In conjunction with our previous findings on the role of the IALL, both interests and ideas mattered for policy diffusion. Small open countries were predisposed to emulate, but only on low cost standards. The adoption of factory inspection and accident compensation satisfied the demands of the domestic reform movement and of trading partners, although small states then moved on to adopt more stringent and costlier regulation. Still, while nations appeared to be more cautious in adopting costly standards in the face of international competition, there is no evidence of a race to the bottom. If undercutting international competition mattered, then the partial effect on the trade cost variable should have been positive and statistically significant. Countries facing the stiffest international competition (where trade costs were low) would have been the least likely to emulate. However, greater integration did not lead to a lower likelihood of adopting labor standards present elsewhere, and European countries, in particular, raised their levels of labor regulation in line with their key trading partners. Globalization was a handmaiden at the birth of the regulatory state.

Conclusion

Everywhere labor regulation was on the rise in the decades before 1914, but the prevailing narrative views this episode as a chapter in national history. Since countries developed economically and politically on parallel trajectories, they consequently adopted comparable policies. We have challenged this depiction. External forces mattered too. Large states coerced smaller countries to upgrade labor standards, epistemic communities spearheaded the adoption of new social norms sympathetic to regulation, and transnational movements cajoled laggards to improve working conditions. Trade itself was a prime mover in raising the level of regulation. Countries that traded with each other were more likely to establish a level playing field. Because this process was uncoordinated and not driven by top-down intervention, policy outcomes varied across countries, even as the overall level of regulation rose.

⁷³ Multinomial regressions for specifications like those in columns 2-4 of Table 4 gave results similar to those reported in Table 6.

Our findings lead to a neglected but straightforward explanation why there was more regulation in Europe than in their offshoots – and possibly why this pattern has persisted from the late nineteenth century until today. Intra-industry trade was greater in the Old World. By 1914 countries had established market networks for their specialized exports. The threat of market loss was credible and enforceable against countries that sought to defect and refused to emulate the labor standards of partners. The New World exported primary products whose prices were determined by world demand and supply. The threat of market loss was not credible and countries were under no compulsion to adopt the regulation of trading partners. In the New World, the rise of labor legislation was predominately a local affair.

We have made a point of separating the determinants of adoption from the effects of regulation. Studies of the effects of regulation have found that firms and industries were often well prepared to meet new legislative norms and that regulation did not alter the composition of labor forces, hours worked, and other outcomes.⁷⁴ Why then did states feel compelled to adopt legislation? Social reformers may have wanted to curtail backsliding, or states may have wanted to demonstrate their concerns to working people. This paper points to an alternative explanation of the persistent and forceful demands for legislation despite its null effects. The timetable of reform was set by domestic and foreign pressures. Indeed, in some cases, trade was a substitute for domestic pressures. Since the adoption of reform was conditional on guarantees of market access, trade and labor regulation rose together. But as incomes and employment expanded along with trade, there was a built-in assurance that the effects of legislation were neutralized.

⁷⁴ For the U.S., see Fishback, “Progressive Era,” and “Unfettered Markets”; Moehling, “State Child.” Huberman, “Ticket,” provides evidence of rapid adjustment of Belgian firms to labor regulation.

APPENDIX 1

In Table 1, wherever possible, we selected dates of introduction of legislation that came close to meeting standards of the Final Protocol of the International Conference on Labour in Factories and Mines held in Berlin in 1890. The Berlin meeting outlined a model labor code that was intended to be the basis of a late nineteenth century European social charter. The final Protocol recommended that children under 12 years of age be prohibited from factory work; the elimination of night work for young women; and a working day for women of 11 hours. In selecting dates of adoption, we gave priority to information found in official publications; when official reports gave conflicting years, we assumed that change occurred mid-way between the last two dates identified. For the Old World, we assume that legislation was standardized within national borders, although after the Franco-Prussian War, German manufacturers maintained that Alsatian firms had a competitive advantage because they were exempted from the stricter German labor code.⁷⁵ For Switzerland, we take federal legislation. For Australia, we use the date the first state passed legislation that met the Berlin standard; for Canada, when Quebec and Ontario achieved this level; for the U.S., we give two values: the first, when ten states passed comparable legislation, and the second in parenthesis, when the ten most populated states adopted comparable laws.

To be sure, other laws governing women's and children's work, and factory conditions could be included in Table 1. For other measures for which we have information there was correlation in the years of adoption with those in the table.⁷⁶ But some of the details of these measures (for instance, night work of children) varied greatly across countries. As Table 2 reports, we selected laws that had less dispersion in their various dimensions, although heterogeneity across countries cannot be rule out.

The choice of dates for the U.S. merits discussion because of different histories of regulation at the state level. Despite its federal structure, Fishback claimed that the "geography of adoption showed that neighboring states were likely to adopt legislation with similar features within the same time frame."⁷⁷ Twenty-two states adopted accident compensation between 1911 and 1914 alone.⁷⁸ For other regulations, legislation was most common in industrial northern states with the largest share of workers in manufacturing and import competing activities – key sectors in our analysis. As for dates of introduction, years recorded in Tables 1 approximate those reported by Commons and Andrews. For women's hours, Commons and Andrews gave 1908, the year when the Oregon ten-hour law for women was upheld, to mark the beginning of "enforceable hour limitation laws for women."⁷⁹ Based on our procedure, we estimated that night work of women was introduced in 1913.

In selecting dates we gave attention to the level of enforcement. We recorded dates of introduction of legislation where to the best of our knowledge regulation was effective. To illustrate, for Spain we recorded dates of passage for child labor because, as the U.S. trade representative wrote unambiguously, "[t]he law provides that children under 10 can not be employed, and those from 10 to 14 years old may work only 6 hours per day... The condition of the working class in Spain has greatly improved over the years."⁸⁰ For Mexico, we did not record early legislation as effective. A trade representative reported in 1909 "that there is a federal law which says mills shall not work over 12 hours a day... but there is no attempt to enforce this law."⁸¹ In the wake of the Revolution, new labor law was passed beginning in 1911; historians of legislation concluded that it was enforced and we have recorded this legislation as effective in 1913.⁸²

⁷⁵ Hagemann, "Verien," p. 159.

⁷⁶ Huberman and Lewchuk, "European Integration"; for correlation across jurisdictions in the U.S., see Fishback, Holmes, and Allen, "Lifting the Curse."

⁷⁷ Fishback, "Progressive Era," p. 302.

⁷⁸ Fishback and Kantor, *Prelude*, p 58.

⁷⁹ Commons and Andrews, *Principles*, pp. 97-102. The citations are from pages 100, 102.

⁸⁰ Odell, *Cotton Goods*, p. 25

⁸¹ Clark, *Cotton Goods*, p. 24.

⁸² Bortz, "Revolution," pp. 674-83.

The list below gives sources consulted for Tables 1 and 2. To avoid duplication, other sources consulted in preparation of the tables and cited in the text appear in the full list of references to this paper.

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FIGURE 1 International Diffusion of Labor Regulation and Accident Compensation

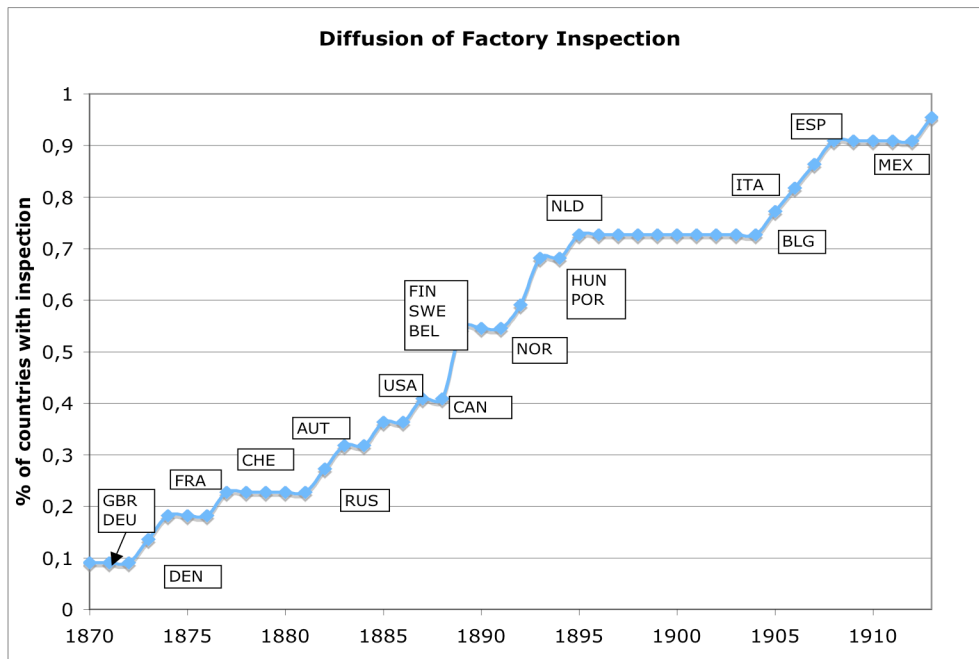
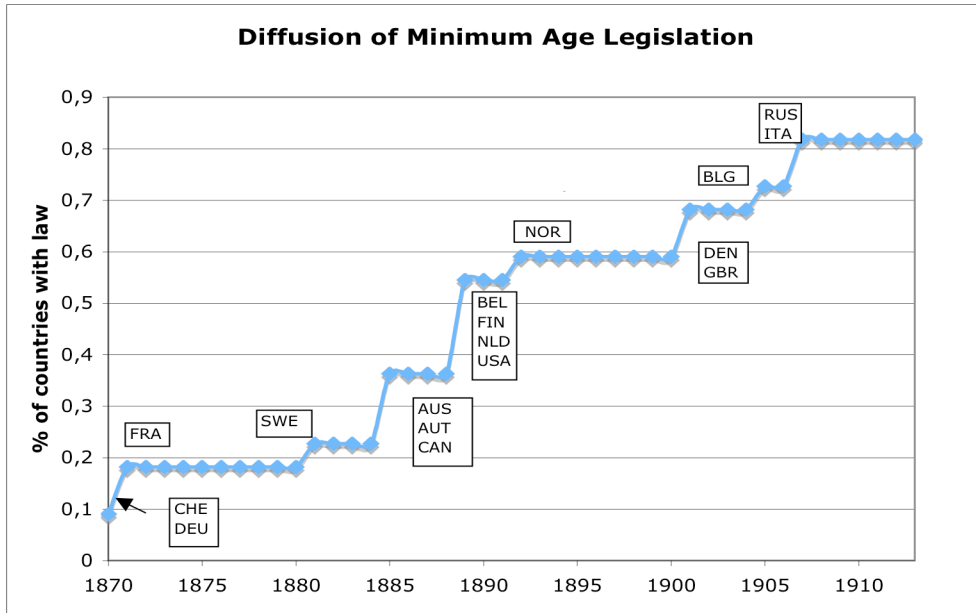
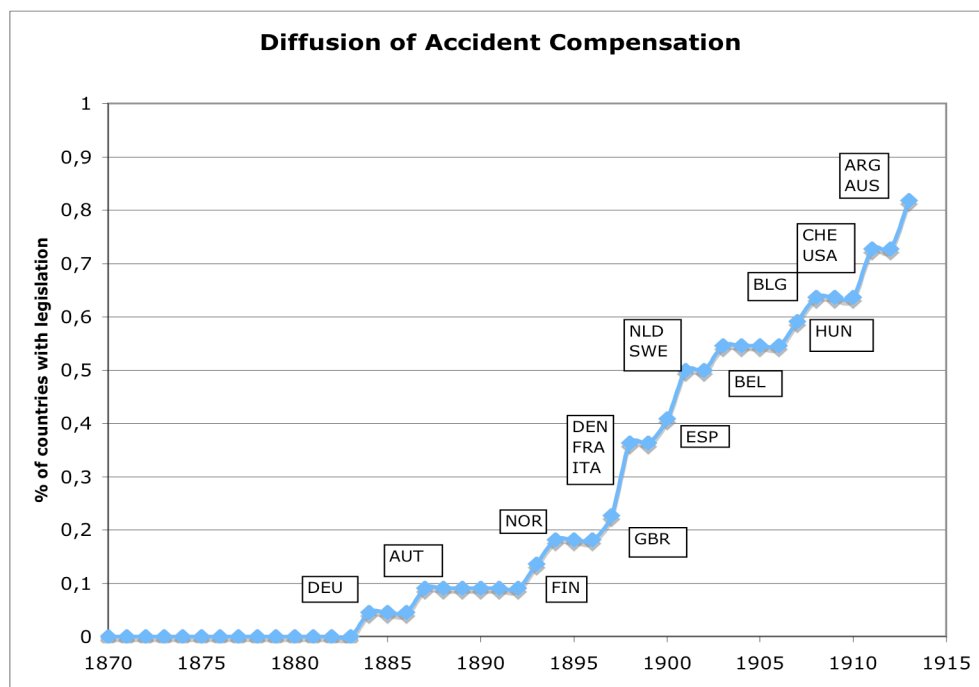
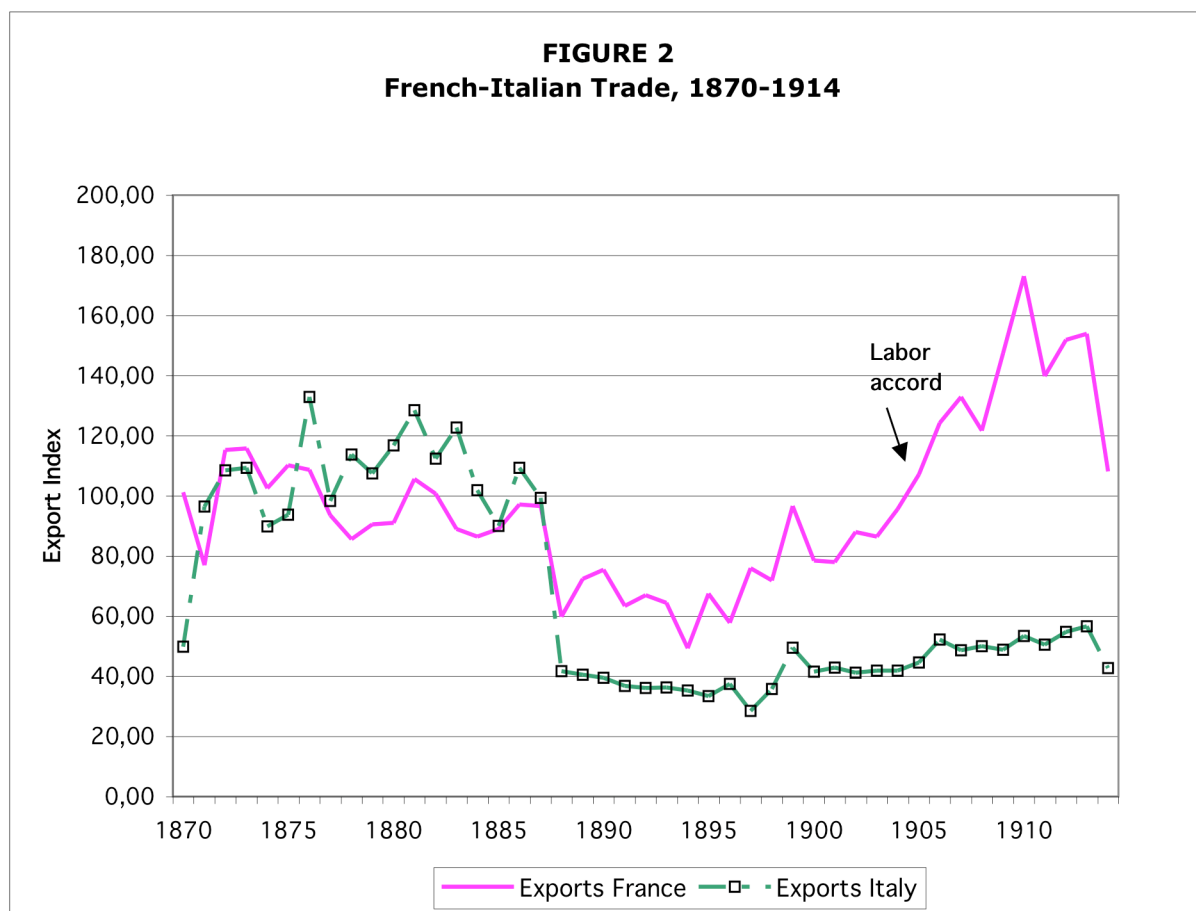


Figure 1 continued



Sources: Table 1 and Appendix.



Notes and sources: Exports values in French francs from France to Italy and Italy to France from *Annuaire statistique*, 1870-1913. Values deflated by consumer price index (Mitchell, *Historical Statistics*). Average of 1870-79 = 100.

TABLE 1 Labor Market Regulation, GDP per capita, and Voter Turnout Before 1914

	Introduction of factory inspection	Minimum age 12	Night work women prohibited	Eleven hour working day women	Accident compensation	GDPpc 1900 (1990\$)	Voter turnout 1890-1900
Austria	1883	1885	1895	1895	1887	2882	0
Belgium	1889	1889	1909e	*	1903	3731	.50
Bulgaria	1905	1905	1909e	1913	1908	1223	0
Denmark	1873	1901	*	*	1898	3017	.33
Finland	1889	1889	*	*	1893	1668	0
France	1874	1871	1892	1892	1898	2876	.65
Germany	1853	1853	1891	1891	1884	2985	.80
Hungary	1893	1884	1909e	*	1907	1682	-
Italy	1906	1907	1907	*	1898	1785	0
Netherlands	1895	1889	1889	1889	1901	3424	.25
Norway	1892	1892	1909e	*	1894	1877	.30
Portugal	1893	*	1909e	*	1913	1302	0
Russia	1882	1907	1905	*	-	1237	0
Spain	1907	*	1909e	*	1900	1789	0
Sweden	1889	1881	1909e	*	1901	2561	.09
Switzerland	1877	1833	1894	1894	1911	3833	.72
United Kingdom	1833	1901	1844	1850	1897	4492	.36
Argentina	*	*	*	*	(1915)	2756	0
Australia	1885	1885	1896	1873	1914	4013	.46
Canada	1888	1885	1910	1910	*	2911	.61
Mexico	1913	*	*	*	*	1366	0
United States	1893 (1911)	1889 (1912)	1913 *	1892 *	1911 (1914)	4091	.35

Notes and sources: *Indicates did not enact such a regulation. - Indicates information not available. e Indicates mid-point estimate. For details and sources, see Appendix 1. GDP in 1990 international GK\$ from Maddison, *World Economy*. Voter turnout, measured as a percentage of the total electorate, is from Lindert, *Growing Public*, and Toke Aidt, personal communication.

TABLE 2 Dimensions of Labor Legislation

	Factory inspection 1914		Night rest for women (hours)		Age restriction	Minimum age		Accident
	Workers ('000)				night labor	(years)		comp.
	Inspectors	/inspectors	1910	1919	women (years)	c1900	1919	cost/wage bill (%)
Austria	80	8.75	11	11	18	14	14	0.72
Belgium	33	12.12	8	11	21	12	14	3.10
Bulgaria			8	9			12	
Denmark	75	5.33			18	10	14	0.75
Finland	30	8.63		11				
France	121	6.61	9	11	18	13	13	2.10
Germany	279	10.75	9	11	18	13	14	1.08
Hungary	43		9	11	16	12	12	
Italy	29	51.72	9	11		9	12	1.95
Netherlands	92	4.35	10	11	16	12	13	
Norway	35	4.40	11	11	18	12	14	1.63
Portugal			8	11	21	10	12	
Russia	201	11.51	8	11	15	12	12	1.36
Spain	61	6.56	8	11	14	10	10	1.50
Sweden	45	4.44	11	11	18	12	13	1.21
Switzerland	20	5.00	10	11	18	14	13	
United Kingdom	206	12.14	12	12	all	11	14	0.73
Argentina							10	
Australia	50	6.72	12	12	18	14	14	
Canada	58	8.62	12	12	18	14	14	
Mexico							12	
United States	114	10.53			16	14	14	1.56

Notes and sources: **Factory inspectors and numbers of workers** - ILO, *Factory Inspection*, and "Some Problems"; Price, "Administration"; Silvestre, "Workplace Accidents"; Mitchell, *Historical Statistics*; figure for U.S. is for Pennsylvania and employment of gainful workers from U.S. *Historical Statistics*, D26-28, p. 130. **Night rest for women, age restriction for women, and minimum age** - Australia is New South Wales; Canada is Ontario; sources for these two countries are listed in appendix 1. Figures for U.S. are the modal state values for the closest years to 1900, 1910, and 1919; sources Fishback, Holmes, and Allen, "Lifting the Curse," pp. 58-62; Engerman, "History and Political Economy," pp. 52-54; Goldin, *Understanding*, pp. 190-91, pp. 76-77; Moehling, "State Child Laws." All other countries from Brooke, *Tabulation*; Engerman, "History and Political Economy," pp. 12-22, 52-54; Fallows, *Antecedents*; Keeling, *Child Labour*. **Employer costs for accident compensation as share of wage bill** - averages of available years from adoption until 1910 from U.S. Commissioner of Labor, *Twenty-fourth Report*; figure for U.S. is the mean value for the first 10 states that adopted the compulsory accident insurance after 1911 from Fishback and Kantor, *Prelude*, p. 58.

**TABLE 3 Export and Import Markets in 1913 for European Manufacturers: Cotton Textiles, Silk, Lace, and Woolens
(millions of marks)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	Exports to Europe as share of country exports (%)	Exports to Europe as share of all items exported in Europe(%)
	Austria-Hungary	Belgium	France	Germany	Great Britain	Italy	Netherlands	Switzerland	Other Europe	Americas	Asia		
Exporter													
A-H		3.8	6.4	109.3	28.1	26.7	9.2	56.3	110.5	22.1	20.4	0.89	0.06
Belgium	16.9		186.8	256.9	141.7	25.6	38.7	3.2	68.6	40.7	10.9	0.93	0.13
France	12.0	330.5		166.2	462.4	91.7	11.5	122.2	58.4	312.3	64.8	0.77	0.21
Germany	197.3	45.8	64.2		275.3	56.3	90.7	100.5	138.7	266.7	83.2	0.73	0.17
GB	24.7	153.7	209.4	503.8		32.1	124.7	64.0	467.7	1076.6	1329.3	0.40	0.27
Italy	30.2	4.0	59.0	94.6	63.6		0.5	106.6	95.8	150.3	44.7	0.70	0.08
Netherlands	0.0	73.2	1.0	44.2	45.3	0.0		0.0	9.3	10.6	76.2	0.67	0.03
Switzerland	25.8	8.2	24.0	101.8	109.1	16.7	3.6		28.4	117.1	14.0	0.71	0.05
Country import share of all items imported in Europe (%)	0.06	0.11	0.10	0.21	0.20	0.04	0.05	0.07	0.16	=100%			=100%

Notes and source: All values in millions of German marks. Kertesz, *Textilindustrie*.

TABLE 4 Determinants of Convergence in Labor Regulations for Country Pairs, 1881-1913

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Baseline	Differences in GDP and turnout	Geographic controls	Old World only	New World only	Country fixed effects	Presence at IALL
International forces							
Trade Costs	-0.08 [0.02]***	-0.08 [0.02]***	-0.08 [0.03]***	-0.1 [0.04]**	0.08 [0.06]	-0.88 [0.29]***	-0.07 [0.02]***
ln (GDP B)	0 [0.02]	0 [0.02]	0 [0.02]	-0.02 [0.03]	0.1 [0.06]*	-0.07 [0.29]	0.01 [0.02]
ln (Population B)	-0.01 [0.02]	-0.01 [0.02]	0 [0.02]	0.01 [0.03]	-0.08 [0.05]	0 [0.31]	-0.02 [0.02]
Turnout B	0.03 [0.02]	0.03 [0.02]	0.04 [0.02]*	0.02 [0.03]	0.07 [0.06]	0.42 [0.16]***	0.03 [0.02]
Domestic forces							
ln (GDP A)	0.04 [0.02]**	0.03 [0.02]	0.03 [0.01]**	0.04 [0.02]*	-0.08 [0.23]	-2.22 [2.86]	0.05 [0.02]***
ln (Population A)	-0.04 [0.01]**	-0.02 [0.02]	-0.03 [0.01]**	-0.04 [0.02]*	0.13 [0.26]	-1.64 [7.57]	-0.05 [0.01]***
New World A	-0.18 [0.02]***	-0.19 [0.02]***	-0.17 [0.03]***	---	---	---	-0.17 [0.02]***
Turnout A	0.05 [0.02]***	0.05 [0.02]***	0.05 [0.02]***	0.03 [0.02]	0.43 [0.12]***	1.18 [0.90]	0.06 [0.02]***
New World A x Turnout A	0.36 [0.07]***	0.37 [0.07]***	0.35 [0.07]***	---	---	---	0.32 [0.06]***
Lagged level of similarity in labor standards	-0.03 [0.01]***	-0.04 [0.01]***	-0.03 [0.01]***	-0.04 [0.01]***	-0.03 [0.02]	-0.62 [0.15]***	-0.03 [0.01]***
Robustness checks							
Absolute value of ln(GDP per capita A) - ln(GDP per capita B)	---	-0.04 [0.02]*	---	---	---	---	---
Absolute value of (Turnout A) - (Turnout B)	---	-0.01 [0.02]	---	---	---	---	---
log (Distance km. between capitals)	---	---	-0.01 [0.01]	---	---	---	---
Shared Border	---	---	-0.03 [0.01]**	---	---	---	---
Both A & B attended IALL in 1901	---	---	---	---	---	---	-0.02 [0.01]
Both A & B attended IALL in 1905	---	---	---	---	---	---	0.06 [0.03]**
Both A & B attended IALL in 1913	---	---	---	---	---	---	0.09 [0.05]
Observations	2725	2725	2725	1603	305	2539	2725
Pseudo-R-Squared	0.06	0.06	0.06	0.06	0.28	0.09	0.08

Notes and sources: Standard errors in brackets clustered at the country pair level. Columns 1 through 4 report average marginal effects. Estimation is by maximum likelihood for a logit model. The dependent variable is 1 when there is convergence on any of five labor standards. Logit coefficients are reported in column 5. Quinquennial dummies are included but not reported. * significant at 10%; ** significant at 5%; *** significant at 1%. GDP and population: Maddison, *World Economy*; vote turnout: Lindert, *Growing Public*, and Toke S. Aidt, personal communication; distance and border: Jacks, Meissner, and Novy, "Trade Costs"; IALL representation: Follows, *Antecedents*, and Shotwell, *Origins*.

TABLE 5 Bilateral Labor Accords

Year	Countries	Agreement	MFN
1870	Great Britain - Netherlands	Emigration of Indian labor to Surinam	
1871	Great Britain - Netherlands	Labor recruitment (Guinea)	
1872	France - Great Britain	Emigration of Indian labor to French Colonies	1860/1873
1874	China - Peru	Commerce, navigation and emigration	
1877	China - Spain	Emigration of Chinese labor to Cuba	
1880	China - United States	Emigration of Chinese labor to USA	
1882	Hawaii - Portugal	Commerce, navigation and emigration	
1882	Belgium - France	Saving funds	
1894	China - United States	Emigration of Chinese labor to USA	
1897	Belgium - France	Saving funds	
1899	Germany - Great Britain	Colonial labor	
1899	China - Mexico	Labor mobility	
1901	Great Britain - Portugal	Labor mobility between Transvaal and Mozambique	
1904	France - Italy	Comprehensive labor treaty	1898
1904	China - Great Britain	Chinese labor	
1904	Italy - Switzerland	Accident compensation	1904
1904	Germany - Italy	Accident compensation	1904/1906
1905	Austria - Germany	Accident compensation and labor legislation	1905
1905	Belgium - Luxembourg	Accident compensation	
1905	Germany - Luxembourg	Accident compensation	
1906	France - Italy	Saving funds	
1906	Belgium - France	Accident compensation	1881
1906	France - Great Britain	Emigration from New Hebrides	1907
1906	Germany - Sweden	Accident compensation	1906/1911
1906	Belgium - Luxembourg	Accident compensation	
1906	France - Italy	Accident compensation	
1906	France - Luxembourg	Accident compensation	
1907	Germany - Netherlands	Accident compensation	
1909	France - Great Britain	Accident compensation	
1909	Great Britain - Sweden	Accident compensation	
1909	Austria-Italy	Accident compensation	1903/1906
1910	Belgium - France	Accident compensation	
1910	France - Italy	Protection of young persons	
1910	France - Italy	Social insurance laws	
1910	France - Great Britain	Accident compensation	
1911	Germany - Sweden	Accident compensation	
1911	Denmark - France	Arbitration	
1912	Belgium - Germany	Accident compensation	
1912	Germany - Italy	Accident compensation	1904/1906
1912	Germany - Spain	Maritime accidents	
1913	Italy - United States	Accident compensation	1913
1913	Belgium - Germany	Accident compensation	
1913	France - Switzerland	Pensions	1906
1914	Germany - Netherlands	Accident compensation	

Source: Lowe, *International Protection*, and Pahre, commercial treaty data set.

TABLE 6 Determinants of Convergence by Type of Labor Regulations for Country Pairs

	(1) Convergence in women's night work, women's max. hours, minimum working age for children	(2) Convergence in accident compensation or factory inspection laws
International forces		
Trade Costs	-0.01 [0.01]	-0.07 [0.02]***
ln (GDP B)	0.02 [0.01]**	-0.02 [0.01]
ln (Population B)	-0.02 [0.01]**	0.01 [0.02]
Turnout B	0.02 [0.01]**	0.01 [0.02]
Domestic forces		
ln (GDP A)	0.06 [0.01]***	-0.04 [0.01]***
ln (Population A)	-0.07 [0.01]***	0.03 [0.01]***
New world A	-0.03 [0.01]**	-0.17 [0.02]***
Turnout A	0.08 [0.01]***	-0.02 [0.01]
New World A x Turnout A	0.07 [0.04]*	0.3 [0.05]***
Lagged level of similarity in column 1 labor standards	-0.04 [0.01]***	0.03 [0.01]***
Lagged level of similarity in column 2 labor standards	0.02 [0.01]***	-0.1 [0.01]***
Observations		2725
Pseudo-R-Squared		0.09

Notes and sources: Standard errors in brackets clustered at the country pair level. Columns 1 and 2 report average marginal effects. Estimation is by maximum likelihood for a multinomial logit. The omitted category is no convergence. Quinquennial dummies are included but not reported. * significant at 10%; ** significant at 5%; *** significant at 1%. For sources. see Table 4.