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QUAN LI and RAFAEL REUVENY

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Economic Globalization and Democracy: An Empirical Analysis

QUAN LI AND RAFAEL REUVENY*

The theoretical literature presents conflicting expectations about the effect of globalization on national democratic governance. One view expects globalization to enhance democracy; a second argues the opposite; a third argues globalization does not necessarily affect democracy. Progress in explaining how globalization affects democracy requires confronting these theoretical positions with data. We assess empirically the effects of globalization on the level of democracy from 1970 to 1996 for 127 countries in a pooled time-series cross-sectional statistical model. The effects of four national aspects of globalization on democracy are examined: trade openness, foreign direct investment inflows, portfolio investment inflows and the spread of democratic ideas across countries. We find that trade openness and portfolio investment inflows negatively affect democracy. The effect of trade openness is constant over time while the negative effect of portfolio investment strengthens. Foreign direct investment inflows positively affect democracy, but the effect weakens over time. The spread of democratic ideas promotes democracy persistently over time. These patterns are robust across samples, various model specifications, alternative measures of democracy and several statistical estimators. We conclude with a discussion of policy implications.

Does economic globalization affect the level of democracy? Is deepening integration into the world economy associated with a decline or rise of democratic governance? These questions have captured the imagination of policy makers and academic scholars alike. Various answers have been provided, and policy recommendations have been made. Anecdotal evidence is typically invoked in debates, but systematic evidence is scarce. This article seeks to fill up this empirical lacuna.

The notions of globalization and democracy are widely discussed in the literature. Most scholars agree that, at the minimum, globalization implies that countries are becoming more integrated into the world economy, with increasing information flows among them.[1] Greater economic integration, in turn, implies more trade and financial openness. Rising information flows imply, arguably, cultural convergence across countries. Most scholars also agree that democracy implies a national political regime based on free elections and broad political representation.[2]

* Department of Political Science, The Pennsylvania State University; and School of Public and Environmental Affairs, Indiana University, respectively. We thank James Eisenstein, James Lee Ray, Gretchen Casper, David Myers, Beth Simmons, Albert Weale and three anonymous referees for helpful comments and suggestions, Erika Andersen and Monica Lombana for research assistance, John Boli, Gretchen Casper, Yi Feng, Robert Barro for help with data. An earlier version of this article was presented at the International Studies Association annual meeting, Los Angeles, 2000, and the Midwest Political Science Association annual meeting, Chicago, 2000.

[1] David Held, Anthony McGrew, David Goldblat and Jonathan Perraton, *Global Transformations: Politics, Economics and Culture* (Stanford, Calif.: Stanford University Press, 1999).

[2] The historical developments of both globalization and democracy have been cyclical. On globalization, see, e.g., Immanuel Wallerstein, *The Modern World System* (New York: Academic Press, 1974); Rondo Cameron, *A Concise Economic History of the World: From Palaeolithic Times to the Present* (New York: Oxford University Press, 1997); Held *et al. Global Transformations: Politics, Economics and Culture*. On democracy, see, e.g., Samuel Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (Norman: University of

The theoretical literature presents conflicting views on the effect of globalization on the level of democracy: one view expects a positive effect; a second view expects a negative effect; a third view argues globalization does not necessarily affect democracy. Progress in explaining the effect of globalization on democracy requires evaluating these claims empirically. We seek to detect generalizable empirical patterns in the effect of globalization on democracy. Democracy is conceptualized as a continuum, ranging from a fully autocratic regime at one end, to a fully democratic regime at the other.[3] Four national aspects of globalization are examined: trade openness, foreign direct investment (FDI) inflows, portfolio (financial) investment inflows and the spread of democratic ideas. Our analysis covers 127 countries from 1970 to 1996 in a pooled time-series cross-sectional statistical model.

Our findings can be summarized as follows. Trade openness and portfolio investment inflows negatively affect democracy. The effect of trade openness is constant over time while the negative effect of portfolio investment inflows strengthens. FDI inflows positively affect democracy, but the effect weakens over time. The spread of democratic ideas promotes democracy persistently over time.

The article is organized as follows. The next section briefly reviews the literature on the determinants of democracy. The following section discusses the effects of globalization on democracy. The research design, the empirical findings and the results from a sensitivity analysis are presented in the next three sections. The last section evaluates the policy implications of our empirical findings and discusses possible future research efforts.

THE LITERATURE ON DETERMINANTS OF DEMOCRACY

Our review of the literature on the determinants of democracy is not meant to be exhaustive, but rather seeks to illustrate how our analysis fits into the larger picture. We categorize this voluminous literature into three groups. One group consists of detailed case studies. A second group includes statistical analyses. These two groups, by and large, focus on domestic political and economic variables and pay relatively little attention to international factors. A third group (discussed in the next section) includes largely theoretical studies of the effects of globalization on democracy.

In their synthesis of a number of case studies, O'Donnell, Schmitter and Whitehead conclude that the effect of international factors on democracy is indirect and marginal.[4] Challenging this conclusion, Pridham labels international factors as the 'forgotten dimensions in the study of domestic transition', and Schmitter argues 'perhaps, it is time to reconsider the impact of international context upon regime change.'[5] Attempting to

(F'note continued)
Oklahoma Press, 1991); D. Potter, D. Goldblat, M. Kiloh and P. Lewis, eds, *Democratization* (Cambridge: Polity, 1997); Larry Diamond, *Developing Democracy: Toward Consolidation* (Baltimore, Md: Johns Hopkins University Press, 1999).

3 The terms 'democracy' and 'level of democracy' are used hereafter interchangeably.

4 G. O'Donnell, P. Schmitter and L. Whitehead, *Transitions from Authoritarian Rule* (Baltimore, Md: Johns Hopkins University Press, 1986), p. 5.

5 Geoffrey Pridham, 'International Influences and Democratic Transition: Problems of Theory and Practice in Linkage of Politics', in Geoffrey Pridham, ed., *Encouraging Democracy: The International Context of Regime Transition in Southern Europe* (New York: St Martin's, 1991), pp. 1–28; P. C. Schmitter, 'The Influence of the International Context upon the Choice of National Institutions and Policies in Neo-Democracies', in L. Whitehead, ed., *The International Dimensions of Democratization: Europe and the Americas* (Oxford: Oxford University Press, 1996), pp. 26–54, at p. 27.

bridge this gap among case studies, Whitehead and Drake argue that international factors such as the diffusion of democratic ideas and global markets are important determinants of democracy.[6]

Among the statistical studies, the dependent variable is democracy, but the independent variables vary. One group of studies argues that economic development positively affects democracy.[7] A second group debates the effects of economic crisis such as recessions and high inflation.[8] A third group expects positive influences by Christianity and negative effects of social cleavages.[9] A fourth group examines the effects of institutions such as constitutional arrangements, non-fragmented party systems and parliamentary versus presidential systems.[10] Finally, some studies consider external factors, but not globalization related variables, such as core–periphery status and diffusion.[11]

The strengths and weaknesses of case studies and statistical analyses of democracy are debated.[12] Briefly, statistical studies focus on the macro conditions that facilitate or hinder democracy. While they can test general theoretical claims and control for competing forces, they are less able to explain the micro processes that affect democracy. Case studies identify detailed micro-level influences, but they are less able to test general theories or assess the relative strength of causal factors.

[6] L. Whitehead, 'Three International Dimensions of Democratization', in L. Whitehead, ed., *The International Dimensions of Democratization* (Oxford: Oxford University Press, 1996), pp. 3–24; Paul W. Drake, 'The International Causes of Democratization, 1974–1990', in Paul W. Drake and Mathew D. McCubbins, eds, *The Origins of Liberty: Political and Economic Liberalization in the Modern World* (Princeton, NJ: Princeton University Press, 1998), pp. 70–91.

[7] See, e.g., S. M. Lipset, 'Some Social Requisites of Democracy: Economic Development and Political Legitimacy', *American Political Science Review*, 53 (1959), 69–105; Robert A. Dahl, *Democracy and its Critics* (New Haven, Conn.: Yale University Press, 1989); Huntington, *The Third Wave*; Ross E. Burkhart and Michael Lewis-Beck, 'Comparative Democracy: The Economic Development Thesis', *American Political Science Review*, 88 (1994), 903–10; Edward N. Muller, 'Economic Determinants of Democracy', *American Sociological Review*, 60 (1995), 966–82; J. B. Londregan and K. T. Poole, 'Does High Income Promote Democracy?' *World Politics*, 49 (1996), 1–30; Yi Feng and Paul J. Zak, 'The Determinants of Democratic Transitions', *Journal of Conflict Resolution*, 43 (1999), 162–77.

[8] See, e.g., G. O'Donnell, *Modernization and Bureaucratic-Authoritarianism: Studies in South American Politics* (Berkeley: Institute of International Affairs, University of California, 1973); Stephen Haggard and Robert R. Kaufman, The *Political Economy of Democratic Transitions* (Princeton, NJ: Princeton University Press, 1995); John F. Helliwell, 'Empirical Linkages Between Democracy and Economic Growth', *British Journal of Political Science*, 24 (1994), 225–48; Mark J. Gasiorowski, 'Economic Crisis and Political Regime Change: An Event History Analysis', *American Political Science Review*, 89 (1995), 882–97.

[9] See Samuel Huntington, 'Will More Countries Become Democratic?' *Political Science Quarterly*, 99 (1984), 193–218; Edward N. Muller, 'Democracy, Economic Development and Income Inequality', *American Sociological Review*, 53 (1988), 50–68; Gasiorowski, 'Economic Crisis and Political Regime Change'.

[10] For discussions on these institutions respectively, see Arend Lijphart, *Democracy in Plural Societies: A Comparative Exploration* (New Haven, Conn.: Yale University Press, 1977); Scott Mainwaring, 'Presidential, Multipartisan, and Democracy: The Difficult Combination', *Comparative Political Studies*, 26 (1993), 198–228; J. J. Linz, 'Presidential or Parliamentary Democracy: Does it Make a Difference?' in Juan J. Linz and A. Valenzuela, eds, *The Failure of Presidential Democracy* (Baltimore, Md: Johns Hopkins University Press, 1994), pp. 3–87.

[11] See Kenneth Bollen, 'World System Position, Dependency, and Democracy: The Cross-National Evidence', *American Sociological Review*, 48 (1983), 468–79; Burkhart and Lewis-Beck, 'Comparative Democracy'; Harvey Starr, 'Democratic Dominoes: Diffusion Approaches to the Spread of Democracy in the International System', *Journal of Conflict Resolution*, 35 (1991), 356–81; Adam Przeworski, M. Alvarez, J. A. Cheibub and F. Limongi, 'What Makes Democracies Endure?' *Journal of Democracy*, 7 (1996), 39–55. For an exception, see Gasiorowski, 'Economic Crisis and Political Regime Change'. While focusing on the effect of economic crisis on democratization, he includes trade openness as a control variable.

[12] See Adam Przeworski and F. Limongi, 'Modernization: Theories and Facts', *World Politics*, 49 (1997), 155–83.

Our study takes a macro approach. However, we believe that the macro and micro approaches provide complementary insights on democracy, much as macroeconomic and microeconomic analyses provide complementary insights on the economy. Our inquiry adopts the spirit of the important qualitative comparative study by Rueschemeyer, Stephens and Stephens.[13] We also study many countries and emphasize the importance of transnational power relations, particularly economic and informational flows. In the next section, we discuss how these external forces affect democracy.

THE GLOBALIZATION–DEMOCRACY CONTROVERSY

The literature on the effects of globalization on democracy is quite large and mostly theoretical. It posits three competing theoretical positions: globalization promotes democracy, globalization obstructs democracy, and globalization has no systematic effect on democracy. To streamline the presentation, Tables 1, 2 and 3 summarize the arguments from studies supporting each of these theoretical positions, respectively.

Globalization Promotes Democracy

The first proposition listed in Table 1 is that globalization promotes democracy by encouraging economic development. The notion that free markets facilitate democracy can be traced back to the late eighteenth century. In this view, globalization promotes economic growth, increases the size of the middle class, promotes education and reduces income inequality, all of which foster democracy. Trade, foreign direct investments and financial capital flows are said to allocate resources to their most efficient use; democracy is said to allocate political power to its most efficient use. The outcome in both cases represents the free will of individuals.[14]

According to a second view, globalization increases the demand of international business for democracy. Business prosperity requires peace and political stability. Since democracies rarely, if at all, fight each other, commercial interests pursue democracy in order to secure peace and stability. As the economic links between states develop, commercial interests strengthen and their demand for democracy rises. Authoritarian countries that open their economies face greater pressures from international business for political liberalization.[15]

[13] D. Rueschemeyer, E. H. Stephens and J. D. Stephens, *Capitalist Development and Democracy* (Chicago: Chicago University Press, 1992).

[14] See Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper and Row, 1950); David Held, 'Democracy: From City States to a Cosmopolitan Order?' *Political Studies*, 40 (1992), 13–40; Marc Platner, 'The Democratic Moment', in Larry Diamond and Marc Plattner, eds, *The Global Resurgence of Democracy* (Baltimore, Md: Johns Hopkins University Press, 1993), pp. 31–49; M. L. Weitzman, 'Capitalism and Democracy: A Summing Up of the Arguments', in S. Bowles, H. Gintis and B. Gustafsson, eds, *Markets and Democracy: Participation, Accountability and Efficiency* (Cambridge: Cambridge University Press, 1993), pp. 314–35; J. Bhagwati, 'Globalization, Sovereignty and Democracy', in A. Hadenius, ed., *Democracy's Victory and Crisis: Nobel Symposium* (Cambridge: Cambridge University Press, 1994), pp. 263–81; S. M. Lipset, 'The Social Requisites of Democracy Revisited', *American Sociological Review*, 59 (1994), 2–13; Muller, 'Economic Determinants of Democracy'; Hyug Baeg Im, 'Globalization and Democratization: Boon Companions or Strange Bedfellows?' *Australian Journal of International Affairs*, 50 (1996), 279–91.

[15] Kant, *Perpetual Peace and Other Essays on Politics, History, and Morals*; Bhagwati, 'Globalization, Sovereignty and Democracy'; Schmitter, 'The Influence of the International Context upon the Choice of National Institutions and Policies in Neo-Democracies'; John Oneal and Bruce Russett, 'The Classical Liberals were Right: Democracy, Interdependence and Conflict, 1950–1985', *International Studies Quarterly*, 41 (1997), 267–94; John

TABLE 1 *Globalization Promotes Democracy*

Num.	Argument	Discussed in
1.	Globalization promotes economic development.	Schumpeter (1950), Held (1992), Platner (1993), Weitzman (1993), Bhagwati (1994), Lipset (1994), Muller (1995), Im (1996)
2.	Globalization increases the demand of international business for democracy.	Kant (1795), Bhagwati (1994), Schmitter (1996), Oneal and Russett (1997, 1999)
3.	Globalization reduces the incentives of authoritarian leaders to cling to power.	Rueschemeyer and Evans (1985), Diamond (1994), Drake (1998)
4.	Globalization reduces information costs, increasing contacts with other democracies and making the pro-democracy international non-governmental organizations (INGOs) more effective.	Van Hanen (1990), Brunn and Leinback (1991), Diamond (1992), Schmitter (1996), Kummell (1998), Keck and Sikkink (1998), Risse and Sikkink (1999), Boli and Thomas (1999)
5.	Globalization pushes the authoritarian states to decentralize power.	Self (1993), Sheth (1995), Roberts (1996)
6.	Globalization promotes domestic institutions that support democracy.	Roberts (1996), Stark (1998), Keck and Sikkink (1998), Fruhling (1998), Risse and Sikkink (1999), Boli and Thomas (1999)
7.	Globalization intensifies the diffusion of democratic ideas.	Kant (1795), Whitehead (1986, 1996), Huntington (1991), Starr (1991), Przeworski *et al.*, (1996)

Note: Please see footnotes to the text accompanying this table for full details of works referred to in this table.

A third argument is that globalization reduces the incentives of the authoritarian leaders to cling to power. Since the state can extract rents from society, losing office implies the forfeit of these rents. Hence, autocratic rulers cling to power, resisting democracy. However, globalization reduces the capacity of the state to extract rents from society by increasing competition and weakening the effectiveness of economic policies. It follows that leaders of autocracies whose economies are more open are less likely to resist democratization.[16]

(F'note continued)
Oneal and Bruce Russett, 'Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict', *Journal of Peace Research*, 36 (1999), 423–42.

[16] D. Rueschemeyer and P. Evans, 'The State and Economic Transformation: Towards an Analysis of the Conditions Underlying Effective Intervention', in P. Evans, D. Rueschemeyer and T. Skocpol, eds, *Bringing the State Back In* (Cambridge: Cambridge University Press, 1985), pp. 69–92; Larry Diamond, 'Democracy and Economic Reforms: Tensions, Compatibility, and Strategies of Reconciliation' (unpublished paper, 1994), cited in Hyug Baeg Im, 'Globalization and Democratization: Boon Companions or Strange Bedfellows?' *Australian Journal of International Affairs*, 50 (1996), 279–91); Drake, 'The International Causes of Democratization, 1974–1990'.

A fourth view argues that globalization reduces information costs, increasing contacts with other democracies and making the pro-democracy international non-governmental organizations (INGOs) more effective. A prosperous democracy requires well-informed actors. With increasing globalization, citizens have access to more information, supplied not just by their own governments. Economic openness enables the established democracies to export their values to autocracies, aided by their developed media. Authoritarian regimes now have less control over information. More exposure to the media also strengthens the effectiveness of transnational advocacy networks and the INGOs, helping them protect pro-democracy forces in authoritarian regimes and promote democracy.[17]

According to a fifth view, globalization pushes the authoritarian state to decentralize power. As globalization deepens, states relinquish control over economic and social progress to the market, which is 'inherently democratic' – as if millions of economic agents cast their 'votes' voluntarily. The weakened state also implies the entrance of grass-roots groups (such as business and professional associations, labour unions) into the political arena. Citizens become more involved in the day-to-day governance of the country, facilitating democracy.[18]

A sixth view argues that globalization strengthens domestic institutions that support democracy. Since the efficient operation of the market requires an enforceable system of property rights and impartial courts, economic openness compels the popularization of norms respecting the rule of law and civil and human rights. The increased involvement of international business and INGOs in the domestic economy further promotes the transparency and accountability of domestic institutions and reduces state intervention, all of which are said to facilitate democracy.[19]

According to a seventh view, globalization intensifies the diffusion of democratic ideas across borders. Scholars argue that the more democracies surround a non-democratic country, the more likely it will become democratic. Since greater economic openness is associated with more information flows and transnational contacts, the diffusion of

[17] Tatu Van Hanen, *The Process of Democratization: A Comparative Study of 147 States, 1980–1988* (New York: Russak, 1990); S. D. Brunn and T. R. Leinback, *Collapsing Space and Time: Geographic Aspects of Communications and Information* (London: Harper Collins Academic, 1991); Larry Diamond, 'Economic Development and Democracy Reconsidered' in Gary Marks and Larry Diamond, eds, *Reexamining Democracy* (Newbury Park, Calif.: Sage, 1992), pp. 93–139; Schmitter, 'The Influence of the International Context upon the Choice of National Institutions and Policies in Neo-Democracies'; Gerhard Kummell, 'Democratization in Eastern Europe: The Interaction of Internal and External Factors: An Attempt at Systematization', *East European Quarterly*, 32 (1998), 243–67; M. E. Keck and K. Sikkink, *Activists Beyond Borders: Advocacy Networks in International Politics* (Ithaca, NY: Cornell University Press, 1998); T. Risse and K. Sikkink, 'The Socialization of International Human Rights Norms into Domestic Practices: Introduction', in T. Risse, S. C. Ropp and K. Sikkink, eds, *The Power of Human Rights: International Norms and Domestic Change* (Cambridge: Cambridge University Press, 1999), pp. 1–38; J. Boli and G. M. Thomas, 'INGOs and the Organization of World Culture', in J. Boli and G. M. Thomas, eds, *Constructing World Culture: International Nongovernmental Organizations since 1875* (Stanford, Calif.: Stanford University Press, 1999), pp. 13–50.

[18] P. Self, *Government by the Market? The Politics of Public Choice* (London: Macmillan, 1993); D. L. Sheth, 'Democracy and Globalization in India: Post-Cold War Discourse', *Annals of the American Academy of Political and Social Science*, 540 (1995), 24–39; Bryan Roberts, 'The Social Context of Citizenship in Latin America', *International Journal of Urban and Regional Research*, 1 (1996), 38–65.

[19] Roberts, 'The Social Context of Citizenship in Latin America'; J. Stark, 'Globalization and Democracy in Latin America', in F. Aguero and J. Stark, eds, *Fault Lines of Democracy in Post Transition Latin America* (Miami: North–South Centre, 1998), pp. 67–96; Keck and Sikkink, *Activists Beyond Borders*; Risse and Sikkink, 'The Socialization of International Human Rights Norms into Domestic Practices: Introduction'; Hugo Fruhling, 'Judicial Reform and Democratization in Latin America', in Aguero and Stark, eds, *Fault Lines of Democracy in Post-Transition Latin America*, pp. 237–62; Boli and Thomas, 'INGOs and the Organization of World Culture'.

TABLE 2 *Globalization Obstructs Democracy*

Num.	Argument	Discussed in
1.	Globalization reduces state policy autonomy and brings about public policies that please foreign investors instead of the common people.	Lindblom (1977), Held (1991), Diamond (1994), Gill (1995), Jones (1995), Gray (1996), Schmitter (1996), Cox (1997), Cammack (1998)
2.	Globalization produces more domestic losers than winners, at least in the short run, and it also diminishes the ability of the state to compensate the losers financially.	Drucker (1994), Muller (1995), Bryan and Farrel (1996), Beck (1996), Cox (1996), Moran (1996), Marquand (1997), Rodrik (1997), Martin and Schumann (1997), Longworth (1998)
3.	Globalization enables the fast movement of money between countries, resulting in frequent balance of payment crises and unstable domestic economic performance.	Im (1987), Diamond (1992, 1999), Haggard and Kaufman (1995), MacDonald (1991), O'Donnell (1994), Trent (1994), Cammack (1998)
4.	Globalization deepens ethnic and class cleavages and diminishes the national-cultural basis of democracy.	Robertson (1992), Dahl (1994), Im (1996)
5.	Globalization enables the state and MNCs to control and manipulate information supplied to the public.	Gill (1995), Im (1996), Martin and Schumann (1997)
6.	Globalization degrades the concept of citizenship, an important prerequisite for a functioning and stable democracy.	Whitehead (1993), O'Donnell (1993), Im (1996), Sassen (1996), Cox (1997), Boron (1998)
7.	Globalization widens the economic gap between the North and the South.	Wallerstein (1974), Bollen (1983), Tarkowski (1989), Przeworski (1991), Gill (1995), Amin (1996), Cox (1996), Im (1996), Kummell (1998)

Note: Please see footnotes to the text accompanying this table for full details of works referred to in this table.

democratic ideas across borders is expected to intensify together with growing economic integration.[20]

Globalization Obstructs Democracy

The first argument in Table 2 is that globalization reduces state policy autonomy and brings about public policies that please foreign investors instead of the common people.

[20] Kant, *Perpetual Peace and Other Essays on Politics, History, and Morals*; L. Whitehead, 'International Aspects of Democratization', in G. O'Donnell, P. Schmitter and L. Whitehead, eds, *Transitions from Authoritarian Rule* (Baltimore, Md: The John Hopkins University Press, 1986), pp. 3–46; Whitehead, 'Three International Dimensions of Democratization'; Huntington, *The Third Wave: Democratization in the Late Twentieth Century*; Harvey Starr, 'Democratic Dominoes: Diffusion Approaches to the Spread of Democracy in the International System', *Journal of Conflict Resolution*, 35 (1991), 356–81; Przeworski, Alvarez, Cheibub and Limongi, 'What Makes Democracies Endure?'

Globalization increases financial capital mobility across countries and facilitates the relocation of the means of production. This, in turn, reduces the ability of states to implement domestically oriented economic policies. Another consequence is that governments now try to compete for foreign capital and design their policies to please global investors and firms, who may not act in the best interest of, nor be held accountable to, the voters. It follows that the level of democracy declines.[21]

According to a second argument, globalization produces more domestic losers than winners, at least in the short run, and it also diminishes the ability of the state to compensate the losers financially. Domestic producers who cannot compete internationally lose from more economic openness. Governments that want to compensate these losers now confront the footloose capital that shrinks the tax base and penalizes deficit spending. Consequently, governments reduce the scope of welfare programmes. The pain is increasingly felt by the poor. The result is rising income inequality and class polarization, serving to weaken democracy.[22]

A third view argues that globalization enables the fast movement of money between countries, resulting in frequent balance of payment crises and unstable domestic economic performance. In such situations, the less developed countries (LDCs) are compelled to accept economic reforms imposed by the developed countries (DCs) and international organizations, which typically involve austerity measures. Economic crises hurt the poor more than the rich, raising domestic income inequality. Social unrest then rises, and support for radical opposition groups grows. Attempting to reassert power, weak democracies resort to authoritarian measures. The electoral technicalities are seemingly retained, but civil rights and the inputs from the elected legislators are increasingly ignored.[23]

[21] Charles E. Lindblom, *Politics and Markets: The World's Political-Economic Systems* (New York: Basic Books, 1977); David Held, 'Democracy, the Nation State and the Global System', in David Held, ed., *Political Theory Today* (Stanford, Calif.: Stanford University Press, 1991), pp. 197–235; Diamond, 'Democracy and Economic Reforms: Tensions, Compatibility, and Strategies of Reconciliation'; Stephen Gill, 'Globalization, Market Civilization, and Disciplinary Neoliberalism', *Journal of International Studies*, 24 (1995), 399–423; R. J. B. Jones, *Globalization and Interdependence in the International Political Economy* (London: Frances Pinter, 1995); J. Gray, *After Social Democracy* (London: Demos, 1996); Schmitter, 'The Influence of the International Context upon the Choice of National Institutions and Policies in Neo-Democracies'; R. W. Cox, 'Globalization, Multilateralism, and Democracy', in R. W. Cox, with T. J. Sinclair, *Approaches to World Order* (New York: Cambridge University Press, 1996), pp. 524–36; Paul Cammack, 'Globalization and the Death of Liberal Democracy', *European Review*, 6 (1998), 249–63.

[22] Peter F. Drucker, 'The Age of Social Transformation', *Atlantic Monthly* (November 1994), 53–80; Muller, 'Economic Determinants of Democracy'; Lowell Bryan and Diana Farrell, *Market Unbound* (New York: John Wiley, 1996); Ulrich Beck, 'Kapitalismus Ohne Arbiet', *Der Spiegel*, 20 (1996), 140–56; R. W. Cox, 'Globalization, Multilateralism, and Democracy', in R. W. Cox, with T. J. Sinclair, *Approaches to World Order* (New York: Cambridge University Press, 1996), pp. 524–36; J. Moran, 'Contradictions Between Economic Liberalization and Democratization: The Case of South Korea', *Democratization*, 3 (1996), 459–90; David Marquand, 'The Great Reckoning', *Prospect* (July 1996), website: www.prospect-magazine.co.uk; Dani Rodrik, *Has Globalization Gone Too Far?* (Washington, DC: Institute for International Economics, 1997); Hans-Peter Martin and Harold Schumann, *The Global Trap: Globalization and the Assault on Prosperity and Democracy* (London: Zed Books, 1997); Richard C. Longworth, *Global Squeeze: The Coming Crisis for First World Nations* (Chicago: Contemporary Book, 1998).

[23] Hyug Baeg Im, 'The Rise of Bureaucratic Authoritarianism in South Korea', *World Politics*, 38 (1987), 231–57; Diamond, 'Economic Development and Democracy Reconsidered'; Diamond, *Developing Democracy*; Haggard and Kaufman, The *Political Economy of Democratic Transitions*; Martha MacDonald, 'Post-Fordism and the Flexibility Debate', *Studies in Political Economy*, 36 (1991), 177–201; G. O'Donnell, 'Delegative Democracy', *Journal of Democracy*, 5 (1994), 55–69; John E. Trent, 'Democracy in Danger' (paper presented at the 46th World Congress of International Political Science Association, Berlin, 1994); Cammack, 'Globalization and the Death of Liberal Democracy'.

According to a fourth argument, globalization deepens ethnic and class cleavages and diminishes the national-cultural basis of democracy. The losers from economic openness tend to seek a united identity based on ethnicity or religion. The winners may promote discriminatory measures to maintain their edge over the losers. Globalization also induces labour migration across countries. The old residents typically attempt to restrict or eliminate the participation of the immigrants in the political system in order to reduce their competitiveness. All these actions intensify social cleavages and undermine the consolidation of democracy.[24]

A fifth argument is that globalization enables the state and the multinational corporations (MNCs) to control and manipulate information supplied to the public. With the help of new information technologies, the state and the MNCs feed the public with processed information that represents only certain views. They are also better able to monitor the people's information sources tightly. The result is a disconnection between the way government decisions are made, and the way the public thinks they are made. The government becomes less transparent and less accountable to the people, and the level of democracy declines.[25]

According to a sixth argument, globalization degrades the concept of citizenship, which is an important prerequisite for a functioning and stable democracy. The global market transforms the individual into a common '*Homo-economicus*' who cares more about profits than public and civic commitments. Individuals pursue their own economic interests, disregarding whether governments practise democratic decision making. Since the public has less interest in the conduct and content of public policy, democracy gradually weakens.[26]

A seventh argument is that globalization widens the economic gap between the North and the South. Globalization involves mostly the DCs, draining capital, technology and skilled labour from the LDCs. With the gap in wealth rising, social unrest rises in the LDCs, their elites cling to power, and their governments become less democratic. The dependency story evolves along similar lines. In a world composed of a rich core and a poor periphery, the core dominates the periphery. The elite in the periphery unite with the elite in the core to exploit the masses in the periphery. MNCs relocate to the LDCs to enjoy lower wages and laxer labour and environmental standards and then repatriate profits to the core. The penetration by MNCs distorts the economies in the LDCs and sways the domestic politics in their own favour, all of which obstruct democracy.[27]

[24] R. Robertson, *Globalization: Social Theory and Global Culture* (London: Sage, 1992); Robert A. Dahl, 'From Immigrants to Citizens: A New Yet Old Challenge to Democracies' (paper presented at International Conference on the 21st Century and Democracy, Seoul, 1994); Im, 'Globalization and Democratization'.

[25] Stephen Gill, 'Globalization, Market Civilization, and Disciplinary Neoliberalism', *Journal of International Studies*, 24 (1995), 399–423; Im, 'Globalization and Democratization'; Martin and Schumann, *The Global Trap*.

[26] Whitehead, 'Three International Dimensions of Democratization'; G. O'Donnell, 'The Browning of Latin America', *New Perspectives Quarterly*, 10 (1993), 50–3; Im, 'Globalization and Democratization'; Saskia Sassen, *Losing Control: Sovereignty in an Age of Globalization* (New York: Columbia University Press, 1996); R. W. Cox, 'Democracy in Hard Times: Economic Globalization and the Limits to Liberal Democracy', in A. McGrew, ed., *The Transformation of Democracy? Globalization and Territorial Democracy* (Malden, Mass.: Blackwell Publishers, 1997), pp. 49–72; Atilio Boron, 'A Reflection on the Capitalist Fault Lines in Latin America', in Aguero and Stark, eds, *Fault Lines of Democracy in Post-Transition Latin America*, pp. 41–65.

[27] Wallerstein, *The Modern World System*; Bollen, 'World System Position, Dependency, and Democracy'; J. Tarkowski, 'Old and New Patterns of Corruption in Poland and USSR', *Telos*, 80 (1989), 51–62; A. Przeworski, *Democracy and the Market: Political and Economic Reforms in Eastern Europe and Latin America* (Cambridge: Cambridge University Press, 1991); Gill, 'Globalization, Market Civilization, and Disciplinary Neoliberalism'; Samir Amin, 'The Challenge of Globalization', *Review of International Political Economy*, 2 (1996), 24–46; Cox, 'Globalization, Multilateralism, and Democracy'; Im, 'Globalization and Democratization'; Kummell, 'Democratization in Eastern Europe'.

TABLE 3 *Globalization Does Not Necessarily Affect Democracy*

Num.	Argument	Discussed in
1.	The extent of globalization is exaggerated.	Scharpf (1991), Jones (1995), Wade (1996), Hirst and Thompson (1996), Hirst (1997)
2.	Globalization does not render the welfare state powerless.	Vernon (1971), Kurzer (1993), Frieden and Rogowski (1996), Garrett (1999)
3.	The effects of globalization on countries vary.	Haggard and Kaufman (1995), Milner and Keohane (1996), Frieden and Rogowski (1996), Longworth (1998), Armijo (1998)

Note: Please see footnotes to the text accompanying this table for full details of works referred to in this table.

Globalization Does Not Necessarily Affect Democracy

Table 3 shows three arguments that question whether globalization has any general effect on democracy. The first holds that the extent of globalization is greatly exaggerated. The world economy is not as integrated as commonly believed. Most international trade takes place within geographical regions, MNCs typically have a home bias, and most foreign direct investment (FDI) concentrates in a few countries. Since the LDCs generally do not participate in the global economy, the effect of their economic openness on their democracy should not be large to begin with. Since the DCs are already stable democracies, globalization will not affect their levels of democracy.[28]

A second argument asserts that globalization does not necessarily render the welfare state powerless. Increased national economic openness originates from the deliberate choices of states. Governments still exert considerable control over their own economies. Moreover, the modern welfare state is still effective because it provides important collective goods under-supplied by markets (such as social stability, property rights, infrastructure) and compensates the losers from economic openness. By implication, one can argue that the level of democracy does not necessarily have to decline with economic openness.[29]

According to a third view, the effects of globalization vary across countries, depending on government policies, a country's location in the global pecking order, the domestic political institutions, the identity of the domestic winners and losers, whether economic sectors are privatized or not, and the current level of democracy. For example, though

[28] F. Scharpf, *Crisis and Choice in European Social Democracy* (New York: Cornell University Press, 1991); Jones, *Globalization and Interdependence in the International Political Economy*; Robert Wade, 'Globalization and its Limits', in Susanne Berger and Ronald Core, eds, *National Diversity and Global Capitalism* (New York: Cornell University Press, 1996), pp. 60–88; Paul Hirst and Grahame Thompson, *Globalization in Question: The International Economy and the Possibilities of Governance* (Cambridge: Polity Press, 1996); Paul Hirst, 'The Global Economy: Myth and Realities', *International Affairs*, 73 (1997), 409–25.

[29] R. Vernon, *Sovereignty at Bay* (New York: Basic Books, 1971); P. Kurzer, *Business and Banking: Political Change and Economic Integration in Western Europe* (Ithaca, NY: Cornell University Press, 1993); J. A. Frieden and R. Rogowski, 'The Impact of the International Economy on National Policies: An Analytical Overview', in R. O. Keohane and H. V. Milner, eds, *Internationalization and Domestic Politics* (Cambridge: Cambridge

globalization-induced economic crises may force the exit of authoritarian regimes in favour of a democracy, these crises, if managed effectively, may instead increase the public support for authoritarian leaders. Hence, the effects of globalization on democracy may not be uniform.[30]

The arguments summarized in Tables 1–3 all exhibit face validity. Since they reach conflicting conclusions, they need to be evaluated empirically, to which we turn next.

RESEARCH DESIGN

Design Issues

Several design issues affect how we should assess statistically the competing claims about the effects of globalization on democracy. The first concerns the measurement of globalization. As a multidimensional concept, the integration of states into the world economy needs to be measured with multiple indicators. We focus on international trade, foreign direct investments, portfolio investments and the spread of democratic ideas. To the best of our knowledge, our study is the first attempt to assess the effects of globalization on democracy, using multiple indicators in one statistical analysis.

A second design issue concerns sample selection. Our sample includes 127 countries from 1970 to 1996. The unit of analysis is the country year. The pooled time-series cross-sectional design allows us to assess the influence of globalization on democracy over time and across countries. One complication in sample selection concerns the distinction between the DCs and the LDCs. Most DCs have already achieved high levels of democracy at the beginning of the sample period. By contrast, many LDCs experienced large variations in their levels of democracy from 1970 to 1996. Although the effects of globalization on the level of democracy may be independent of the development level of a country, it is equally possible that LDCs exhibit patterns in the effects of globalization on democracy distinct from those of DCs. In fact, several authors argue that the adverse effects of globalization on democracy may be stronger in DCs than in LDCs. We investigate this possibility by analysing the effects of globalization for all countries, and then for a sample excluding DCs as measured by membership in the Organization for Economic Development and Co-operation (OECD).

The specification of the statistical model presents a third design issue. Obviously, democracy depends not only on a country's economic openness. Control variables must be included to avoid spurious statistical results. However, existing statistical studies that use some measure of democracy as the dependent variable (such as the level of democracy, a dichotomous measure of democratic transition, the change in the level of democracy) differ in their independent variables. Many studies find that domestic economic variables affect democracy. Consequently, we include gross domestic product (GDP) per capita, the

(F'note continued)

University Press, 1996), pp. 25–47; Geoffrey Garrett, 'Global Markets and National Politics: Collision Course or Virtuous Circle?' *International Organization*, 52 (1999), 787–824.

[30] Haggard and Kaufman, *The Political Economy of Democratic Transitions*; H. V. Milner and R. O. Keohane, 'Internationalization and Domestic Politics', in Keohane and Milner, eds, *Internationalization and Domestic Politics*, pp. 3–24; Frieden and Rogowski, 'The Impact of the International Economy on National Policies'; Longworth, *Global Squeeze*; L. E. Armijo, 'Mixed Blessing: Foreign Capital Flows and Democracy in Emerging Markets' (presented at Annual Meeting of International Studies Association, Minneapolis, 1998).

economic growth rate and the inflation rate as control variables.[31] Domestic structural variables (for example, Protestant population, institutional qualities of the regime and party fragmentation) and attributes of the international system may also affect democracy. But these factors are relatively stable, implying that democracy exhibits inertia. To control for the effect of inertia, we include the lagged dependent variable (the level of democracy) as an independent variable, a strategy also adopted in other studies.[32] In addition to this theoretical reason, this lagged variable also helps to capture the effects of variables not present in the model. 'With such a pervasive control in place, it is more difficult for spurious effects to be reported.'[33] It is worth noting that the inclusion of the lagged dependent variable might soak up the variations in the dependent variable that could be explained by other independent variables, making it harder for us to find statistically significant results. Hence, our approach can be described as conservative.

The relationship between our variables may be simultaneous. For example, economic integration variables may be affected by changes in democracy. A higher level of democracy may imply lower political risks and more secure property rights, attracting trade and investments.[34] Ignoring simultaneity implies the risk of simultaneity bias. Many studies deal with this problem by lagging the independent variables.[35] Though this is a partial solution, we follow the same approach here.

A fourth design issue arises since the effects of globalization on democracy may change over time. Casual observation suggests that the scope and nature of globalization did change over time. For example, the scope and types of portfolio investments and information flows (two aspects of globalization) took on a more prominent role in the 1990s, compared with the 1970s. This is not unique to the globalization variables. Gasiorowski, for example, finds that the effect of inflation on the likelihood of democratization changes over time. Ignoring this issue altogether may lead to model misspecification.

To assess the time-varying effects, we use the systematically varying parameter approach.[36] In order to determine which variables have the time-varying effect, we first estimate a pooled time-series cross-sectional model for each decade (1970s, 1980s and 1990s). The decade selection has no particular theoretical justification, but the results

[31] On the three economic variables, see Kenneth Bollen, 'Political Democracy and the Timing of Development', *American Sociological Review*, 44 (1979), 572–87; Muller, 'Democracy, Economic Development and Income Inequality'; Seymour Martin Lipset, Kyoung-Ryung Seong and John Charles Torres, 'A Comparative Analysis of the Social Requisites of Democracy', *International Social Science Journal*, 16 (1993), 155–75; Edward N. Muller and Mitchell A. Seligson, 'Civic Culture and Democracy: The Question of Causal Relationship', *American Political Science Review*, 88 (1994), 635–52; Burkhart and Lewis-Beck, 'Comparative Democracy'; Helliwell, 'Empirical Linkages Between Democracy and Economic Growth'; Muller, 'Economic Determinants of Democracy'; Gasiorowski, 'Economic Crisis and Political Regime Change'; Yi Feng, 'Democracy, Political Stability and Economic Growth', *British Journal of Political Science*, 27 (1997), 391–418.

[32] See, for example, Bollen, 'Political Democracy and the Timing of Development'; Burkhart and Lewis-Beck, 'Comparative Democracy'; Muller, 'Democracy, Economic Development and Income Inequality'; Muller and Seligson, 'Civic Culture and Democracy'.

[33] Burkhart and Lewis-Beck, 'Comparative Democracy', p. 905.

[34] See Mancur Olson, 'Dictatorship, Democracy, and Development', *American Political Science Review*, 87 (1993), 567–76.

[35] See, for example, Muller and Seligson, 'Civic Culture and Democracy'; Oneal and Russett, 'The Classical Liberals were Right: Democracy, Interdependence and Conflict, 1950–1985'; Oneal and Russett, 'Assessing the Liberal Peace with Alternative Specifications'.

[36] See George G. Judge, R. Carter Hill, William E. Griffiths, Helmut Lutkepohl and Tsoung-Chao Lee, *Introduction to the Theory and Practice of Econometrics* (New York: Wiley, 1988), p. 435; William E. Griffiths, R. Carter Hill and George G. Judge, *Learning and Practicing Econometrics* (New York: Wiley, 1993), p. 421.

provide a general sense about the temporal stability of the effects on democracy. Variables whose parameters exhibit reversals of signs across those pooled decades are suspected to have time-varying effects on democracy. Interaction terms between these variables and a calendar year variable are then created and included in the model.[37]

A fifth design issue has to do with the familiar risks of heteroscedasticity and serial correlation. With heteroscedastic variance and serial correlation in the error term, the estimated coefficients are still consistent, but their standard errors are not efficient and most likely biased. To deal with this problem, we estimate our statistical model using a variant of the White estimator of robust standard errors that adjusts for clustering over country.[38] This estimator yields consistent estimation of the covariance matrix under very general conditions of heteroscedasticity and serial correlation.[39] In addition, as Beck and Katz suggest, our inclusion of the lagged dependent variable models the temporal dynamics and also helps to deal with serial correlation.[40]

Data and Variables

This subsection describes the data and variables for our statistical model. To facilitate presentation, we denote each variable with a formal name. The dependent variable DEMOCRACY denotes the level of democracy for a country in any given year, based on the Polity III data.[41] The widely used Polity III data register various attributes of regime type on an annual basis for many countries from about 1800 to 1998, using two indices. The 10-point democracy index (DEMOC) measures the democratic characteristics of the regime. The 10-point autocracy index (AUTOC) measures the autocratic characteristics of the regime. As pointed out by Oneal and Russett, Londregan and Poole, Mansfield and Snyder, among others, because many governments have both democratic and autocratic characteristics, DEMOC and AUTOC do not provide redundant information about regime type and should both be used to measure the level of democracy.[42] We follow these studies and measure democracy as the difference between DEMOC and AUTOC, generating an index ranging between -10 (for the most autocratic regime) and 10 (for the most democratic regime).

The independent variables divide into two types: globalization-related variables (the focus of our study) and control variables. Globalization is measured by four indicators: trade openness, foreign direct investment inflows, portfolio investment inflows and the spread of democratic ideas. The three economic variables are collected from the World Bank's *1999 World Development Indicators CD-ROM*. The measure of the spread of democratic ideas is coded using Polity III data.

[37] Gasiorowski employs such an interactive model to examine the time-varying effects of inflation on democratization. See Gasiorowski, 'Economic Crisis and Political Regime Change'.

[38] H. White, 'A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity', *Econometrica*, 48 (1980), 817–38.

[39] See V. Wiggins, 'Comparing XTGLS with Regress Cluster ( )' (STATA Corporation, http://www.stata.com/support/faqs/stat/xtgls_rob.html, 1999).

[40] Nathaniel Beck and Jonathan N. Katz, 'Nuisance vs. Substance: Specifying and Estimating Time-Series Cross-Section Models', *Political Analysis*, 6 (1995a), 1–34; Nathaniel Beck and Jonathan N. Katz, 'What to Do (and Not to Do) With Time-Series Cross-Section Data', *American Political Science Review*, 89 (1995b), 634–47.

[41] Keith Jaggers and Ted Robert Gurr, 'Tracking Democracy's Third Wave with the Polity III Data', *Journal of Peace Research*, 32 (1995), 469–83; Ted Robert Gurr and Keith Jaggers, *Polity98 Project: Regime Characteristics, 1800–1998* (http://www.bsos.umd.edu/cidcm/polity/, 1999).

[42] Londregan and Poole, 'Does High Income Promote Democracy?'; Oneal and Russett, 'The Classical Liberals were Right'; Oneal and Russett, 'Assessing the Liberal Peace with Alternative Specifications'; Edward Mansfield and Jack Snyder, 'Democratization and the Danger of War', *International Security*, 20 (1995), 5–38.

TRADE denotes the yearly level of trade openness for each country. As conventional in the literature, trade openness is defined as the sum of the value of imports and the value of exports of goods and services of a country with the rest of the world, measured as a percentage of the country's GDP.

FDI denotes the yearly value of net inflows of foreign direct investments as a percentage of a country's GDP for each country. FDI involves the acquisition of a lasting management interest (10 per cent or more of voting stock) in an enterprise operating in an economy other than that of the investor, or the creation of a new subsidiary of a firm in a foreign country. It is given here as the sum of equity capital, reinvestment of earnings, other long-term and short-term capital as shown in the balance of payments.

PORTFOLIO denotes the yearly value of net inflows of portfolio investments as a percentage of GDP for each country. Portfolio investments (excluding liabilities constituting foreign authorities' reserves) cover transactions in equity securities (the sum of country funds, depository receipts and direct purchases of shares by foreign investors) and debt securities (publicly guaranteed and non-guaranteed debt from privately placed bonds).

DIFFUSION denotes the yearly number of democracies within a region around each country. The regions include Europe, Middle East, Africa, Asia, North and South America. We define a country as democratic if the difference between its DEMOC and AUTOC scores is greater than or equal to 6, as in, for example, Mansfield and Snyder, and Oneal and Russett.[43] Like Starr and Gasiorowski, we assume that the type of political regime a county has is more likely to be affected by the type of political regime of its neighbouring countries than by more distant countries.[44] In general, the diffusion of democratic norms is said to work through contact-based mechanisms, which involve information flows, contact in the marketplace, communication networks, tourism, etc. Geographically proximate countries typically have more contact. Hence, in our context, DIFFUSION may be thought of as a proxy for information and communication flows of democratic ideas among countries.[45]

Moving to the control variables, INFLATION denotes the yearly growth rate of the GDP deflator.[46] Several studies use inflation as a proxy of economic crisis, the effect of which on democracy is debated. Some studies argue the effect is positive, while others argue the effect is negative.[47] ECONOMIC DEVELOPMENT denotes the logged yearly GDP per capita in purchasing power parity adjusted international prices. Many statistical studies of the determinants of democracy use this variable as an indicator of the level of economic development, either as a central variable or as a control variable.[48] ECONOMIC GROWTH denotes the annual percentage growth rate of real GDP.

[43] Oneal and Russett, 'The Classical Liberals were Right'; Mansfield and Snyder, 'Democratization and the Danger of War'.

[44] Starr, 'Democratic Dominoes'; Gasiorowski, 'Economic Crisis and Political Regime Change'.

[45] We compute the correlation between a yearly measure of the number of main phone lines and television sets for each country and DIFFUSION. The correlation ($r = 0.45$) is statistically significant at the 1 per cent level. We do not include this measure as an independent variable since it is collinear ($r = 0.8$) with GDP per capita in the model. Hence, it is possible to argue that GDP per capita also serves as a proxy of the communication aspect of national integration into the world economy.

[46] The GDP deflator is the ratio of nominal GDP (measured in current prices) to real GDP (measured in constant prices).

[47] See, for example, Gasiorowski, 'Economic Crisis and Political Regime Change'; Drake, 'The International Causes of Democratization, 1974–1990'; Huntington, *The Third Wave*; Haggard and Kaufman, *The Political Economy of Democratic Transitions*.

[48] D. Rueschemeyer, 'Different Methods – Contradictory Results? Research on Development and Democracy', *International Journal of Comparative Sociology*, 32 (1991), 9–38; Diamond, 'Economic Development and Democracy Reconsidered'; Gasiorowski, 'Economic Crisis and Political Regime Change'; Przeworski and Limongi, 'Modernization'.

PRIOR DEMOCRACY denotes the value of the dependent variable in the previous year, for each country (the one year lag of the dependent variable). The variable has two functions. First, it controls for the fact that political regimes tend to have an inertia, changing slowing over time. Secondly, as we explained earlier, the variable controls for the possible effect of omitted variables and also helps to deal with possible serial correlation in the error term.

Finally, YEAR is a calendar year variable that serves two functions. YEAR by itself tests whether the level of democracy has a linear trend, and it interacts with other variables that have time-varying effects over democracy.

EMPIRICAL RESULTS

As called for by our research design, we first estimate pooled time-series cross-sectional models for each decade for all countries and the LDCs, for diagnostic purposes. The results are presented in Table 4. The effect of trade on democracy is always negative and statistically significant, the effect of DIFFUSION is statistically significant in four out of six cases, and is always positive. The effect of PRIOR DEMOCRACY is always positive and statistically significant. The effect of ECONOMIC GROWTH is positive but statistically insignificant in all cases (except for the case of all countries, from 1970 to 1979). As the sign of these four variables is consistent across decades, we include them in the model as main effects only. The signs of ECONOMIC DEVELOPMENT, FDI, PORTFOLIO and INFLATION change over decades. Hence, they enter the model both individually and as interactive terms with YEAR.[49]

Table 5 presents the results for all countries from 1970 to 1996 in the first column and for the non-OECD countries in the second column. The adjusted R^2s for both models are 0.93 and 0.90 respectively, indicating that the models explain most of the observed variations in democracy. All the interaction terms are statistically significant, as are all the main effects of the variables for which an interaction was included. Another general observation on the model is that all the globalization-related variables are also statistically significant. In fact, except for ECONOMIC GROWTH, all the effects are statistically significant, which supports our model specification. We now turn to the specific results.

Beginning with Column 1 for all countries, TRADE has a statistically significant negative effect on the level of democracy. This result is consistent with the well-known tendency of trade to generate economic winners and losers in the short run. While the overall gain from trade outweighs the cost of trade, the process by which the winners compensate the losers is political and slow, and the endogenous domestic economic adjustment process (such as movement of labour from losing to winning sectors) is also relatively slow. As such, trade can generate changes in the distribution of income in the short run, giving rise to the type of processes described in the section on the obstructing effects of globalization on democracy.

The main effect of FDI on democracy is positive and statistically significant. The coefficient of the interaction term YEAR·FDI is negative and statistically significant. The total effect of FDI is given by $(5.1906 - 0.0026 \cdot \text{YEAR})$. This expression gives 0.055 in 1975, 0.029 in 1985, 0.001 in 1996. Hence, the total effect of FDI on democracy is positive and declines over time. These results suggest that FDI exerts both positive and negative effects

[49] For the overlapping variables (inflation, economic growth, economic development, trade openness), these results generally agree with those reported by Gasiorowski, although his dependent variable measures the dichotomous event of democratization (a 1, 0 variable), while our dependent variable measures the level of democracy. See Gasiorowski, 'Economic Crisis and Political Regime Change'.

TABLE 4 *Pooled Time-Series Cross-Sectional Models of Democracy by Decade*

	All (1970–79)	All (1980–89)	All (1990–96)	LDC (1970–79)	LDC (1980–89)	LDC (1990–96)
TRADE	− 0.0042**	− 0.0021*	− 0.0041**	− 0.0049**	− 0.0029**	− 0.0032*
	(0.0022)	(0.0014)	(0.0021)	(0.0025)	(0.0016)	(0.0024)
FDI	0.0141	− 0.0357	− 0.0188	0.0110	− 0.0426	− 0.0200
	(0.0178)	(0.0340)	(0.0391)	(0.0192)	(0.0385)	(0.0424)
PORTFOLIO	0.0031	− 0.0211	0.0021	− 0.0118	− 0.0247	0.0092
	(0.0183)	(0.0196)	(0.0069)	(0.0216)	(0.0210)	(0.0093)
DIFFUSION	0.6034**	0.1501	0.2251*	0.9548***	0.1981	0.2378*
	(0.2662)	(0.1559)	(0.1445)	(0.3172)	(0.1777)	(0.1617)
INFLATION	− 0.0031	0.0002***	− 0.0001	− 0.0045*	0.0001***	− 0.0001
	(0.0028)	(0.0000)	(0.0001)	(0.0029)	(0.0000)	(0.0001)
ECONOMIC GROWTH	− 0.0019	0.0067	0.0115	0.0012	0.0071	0.0127
	(0.0153)	(0.0122)	(0.0156)	(0.0165)	(0.0125)	(0.0160)
ECONOMIC DEVELOPMENT	0.1098	0.4081***	− 0.0820	0.1523	0.5352***	− 0.1938**
	(0.1143)	(0.0999)	(0.0797)	(0.1509)	(0.1199)	(0.1120)
PRIOR DEMOCRACY	0.9253***	0.9253***	0.9202***	0.9141***	0.9290***	0.9170***
	(0.0237)	(0.0161)	(0.0226)	(0.0244)	(0.0170)	(0.0238)
Constant	− 1.4142	− 3.0927***	1.0082	− 2.2999	− 4.0277***	1.7565*
	(1.0956)	(0.8233)	(0.7240)	(1.3985)	(0.9187)	(0.9460)
Observations	353	948	720	273	772	595
Adjusted R^2	0.93	0.94	0.90	0.89	0.91	0.88

Notes: White robust standard errors adjusted for clustering over country in parentheses. One-tailed tests: * Significant at 10 per cent; ** Significant at 5 per cent; *** Significant at 1 per cent.

TABLE 5 *Effects of Economic Globalization on Democracy, 1970–96*

	All Countries	Non-OECD Countries
TRADE	− 0.0029***	− 0.0032***
	(0.0010)	(0.0011)
FDI	5.1906*	5.8359*
	(3.3016)	(3.7712)
PORTFOLIO	4.7240***	5.3892**
	(1.8888)	(2.4406)
DIFFUSION	0.2437***	0.2922***
	(0.1058)	(0.1219)
INFLATION	0.0599**	0.0537*
	(0.0350)	(0.0344)
ECONOMIC GROWTH	0.0068	0.0069
	(0.0084)	(0.0087)
ECONOMIC DEVELOPMENT	34.2597***	36.7637***
	(11.5024)	(16.8662)
PRIOR DEMOCRACY	0.9269***	0.9242***
	(0.0109)	(0.0115)
YEAR	0.1514***	0.1593***
	(0.0505)	(0.0670)
YEAR·FDI	− 0.0026*	− 0.0029*
	(0.0017)	(0.0019)
YEAR·PORTFOLIO	− 0.0024***	− 0.0027**
	(0.0009)	(0.0012)
YEAR·INFLATION	− 0.00003**	− 0.000027*
	(0.000017)	(0.000017)
YEAR·ECONOMIC DEVELOPMENT	− 0.0172***	− 0.0184**
	(0.0058)	(0.0085)
Constant	− 301.8202***	− 317.8469***
	(100.2552)	(132.8935)
Observations	2,021	1,640
Adjusted R^2	0.93	0.90

Notes: White robust standard errors adjusted for clustering over country in parentheses. One-tailed tests: * Significant at 10 per cent; ** Significant at 5 per cent; ***Significant at 1 per cent.

on democracy, as discussed in the third section, but the negative effect grows over time. On the positive side, FDI can promote economic growth and technological progress. On the negative side, FDI can raise domestic income inequality. The tendency of FDI to quickly relocate to cheaper production places in other nations and the tendency of MNCs to interfere in host countries' domestic politics (see the third section) may also account for the negative effect of FDI on democracy.

The main effect of PORTFOLIO is positive and statistically significant. The coefficient of the interaction term YEAR·PORTFOLIO is negative and statistically significant. The total effect of PORTFOLIO is given by (4.7240 − 0.0024·YEAR). This expression gives − 0.016 in 1975, − 0.04 in 1985, − 0.066 in 1996. Hence, the total effect of PORTFOLIO on democracy is negative and strengthens over time. These results suggest that portfolio investments have both positive and negative effects on democracy, as discussed in the third section, but the negative effect dominates. The positive main effect of portfolio investments on democracy may reflect the economic discipline financial markets impose on governments, which has contributed to greater transparency, better management practices, and stronger property rights institutions. The negative effect may capture the dramatic increase in the ability of portfolio investments to move quickly among countries, which at times leads to financial collapse and devastating socio-political outcomes.

The effect of DIFFUSION on democracy is positive and statistically significant. Hence, an increase in the number of democracies in a region around some country raises its level of democracy. Interpreting DIFFUSION as a proxy for information flows, one may argue that a region with more democracies is likely to diffuse democratic ideas more effectively. Indirectly, then, this result does not support the claim (see the third section) that the increased information flows will reduce the level of democracy.

Moving to the control variables in Column 1, PRIOR DEMOCRACY has a positive and statistically significant effect on current democracy. Other studies that include this variable report similar results, illustrating that democracy as a social phenomenon tends to have inertia. As Przeworski *et al.* argue, it almost seems tautological to argue that the current level of democracy rises when the past level of democracy rose.[50] However, this result has an important substantive implication. One simply cannot expect to find a higher level of democracy by strengthening dictatorship or authoritarianism, *ceteris paribus*. If the level of democracy fell in the past, one should expect to find a lower level of democracy in the future. Therefore, international interactions that strengthen an authoritarian regime are likely to reduce democracy in that country in the near future. Similarly, reforms towards a higher level of democracy tend to accumulate over time, leading to more democratic reforms.[51]

The effect of INFLATION is statistically significant and positive, but its interaction term YEAR·INFLATION is statistically significant and negative. The total effect of inflation on the level of democracy is positive and the largest in the 1980s. ECONOMIC GROWTH has a positive sign, but is not statistically significant. As in many studies, ECONOMIC DEVELOPMENT has a positive and statistically significant effect on the level of democracy. The interaction term YEAR·ECONOMIC DEVELOPMENT is statistically significant but negative, suggesting that its effect weakens over time. The calendar year variable YEAR is statistically significant and positive, indicating a partial tendency for democracy to grow over time, in this sample.

The results regarding the domestic economic effects on democracy replicate the spirit of previous studies, which supports our model. To further investigate the robustness of the results, we estimated the model for a sample of the non-OECD countries only. Compared with the results for all countries in Column 1, the adjusted R^2 for the non-OECD countries in Column 2 is a bit lower because of the smaller sample size and reduced variation in the independent variables. However, the signs and statistical significance levels for all the variables in Column 2 match well with those in Column 1. This indicates that the results in Column 1 are not an artefact of the inclusion of the OECD countries in the sample. The most striking difference between Columns 1 and 2 is the size of the parameter estimates of TRADE, FDI, PORTFOLIO, DIFFUSION, YEAR·FDI, and YEAR·PORTFOLIO. While having the same signs, these parameters are larger in Column 2 than in Column 1. We believe this generally demonstrates that globalization has a larger effect on democracy in the LDCs than in the DCs. In a way, this is not surprising since in our sample, the democracy levels of OECD countries are stable for the most part at or close to the highest democracy score based on Polity III data.

50 Przeworski, Alvarez, Cheibub and Limongi, 'What Makes Democracies Endure?'

51 We also estimate the models in Table 5 excluding the lagged dependent variable. While the inclusion of the lagged dependent variable usually makes other independent variables insignificant, its exclusion from our model actually renders the results statistically less significant in both samples. This suggests that we did not get null results in Table 5 because of the lagged dependent variable. These statistical results are available from the authors upon request.

SENSITIVITY ANALYSIS

The model specification, the measures of democracy and the estimation techniques vary across statistical studies of democracy. In order to investigate the effects of these variations in our case, we conduct a sensitivity analysis. Specifically, we add new control variables, use Freedom House data to measure democracy, and apply different estimators. The results are presented in Tables 6 and 7. Overall, the effects of globalization on democracy reported in Table 5 are replicated across the twenty-five experiments reported in Tables 6 and 7. We therefore judge our results to be robust. Below, we discuss Tables 6 and 7 in detail.[52]

Table 6 reports the results from fifteen experiments, denoted as Model 1 through Model 15, investigating the effects of adding new control variables and/or using a different measure of democracy. In Models 1–12, democracy is measured based on Polity III data as in Table 5, whereas in Models 13–15, democracy is based on Freedom House data. As for the new control variables, GINI denotes the level of national income inequality, measured by the Gini coefficient. EDUCATION denotes the level of national education, measured by the average number of years of education in the population.[53] INGOs denotes the number of international non-governmental organizations to which individuals or organizations from each country belonged in a given year.[54] SEMIPERIPHERY and PERIPHERY are two dummy variables that denote whether a country belongs to the world-system semi-periphery and periphery respectively. In the model, they interact with ECONOMIC DEVELOPMENT as in Burkhart and Lewis-Beck.[55] EUROPE, MIDDLE EAST, AFRICA and ASIA are dummy variables that denote the geographical region of a country.

Across Models 1–12 in Table 6, the effect of TRADE is statistically significant in eleven out of twelve cases and is always negative. The main effect of FDI is significant in eleven cases and is always positive. The interaction effect of FDI is also significant in eleven cases and is always negative. The effect of DIFFUSION is significant in eleven cases and is always positive. The main effect of PORTFOLIO is significant in six cases and is always positive. The interaction effect of PORTFOLIO is significant in six cases and is always negative. These results strongly support those in Table 5.

Moving to the dependent variable, while we measure democracy based on the Polity III data, some scholars employ the Freedom House data.[56] Polity III data emphasize the constraints on the executive political recruitment, contestation and functioning. Based on the Freedom House data, Diamond argues that in recent years some countries have become pseudo-democracies, where the rights of contestation are protected, but civil rights are

[52] The results for the original control variables from the models in Table 6 and 7 are broadly consistent with Table 5. To save space, we do not report them here.

[53] For GINI and EDUCATION, we use the same data and variable transformation as in Feng and Zak, 'The Determinants of Democratic Transitions'. GINI come from the high-quality data from K. Deininger and L. Squire, 'A New Dataset Measuring Income Inequality', *World Bank Review*, 10 (1996), 564–91. We log and lag the raw data. The missing values of GINI are filled with predictions from estimating GINI as a function of GDP per capita, GDP per capita squared, and regional dummies. EDUCATION comes from Robert J. Barro and Jong-Wha Lee, 'International Data on Educational Attainment: Updates and Implications' (unpublished, Harvard University, 2000) and is also logged and lagged.

[54] The data on INGOs come from Boli and Thomas. See Boli and Thomas, 'INGOs and the Organization of World Culture', pp. 13–50.

[55] Like Burkhart and Lewis-Beck, we have also estimated the models using only SEMIPERIPHERY and PERIPHERY dummies by themselves and found similar results. See Burkhart and Lewis-Beck, 'Comparative Democracy'.

[56] See, for example, Burkhart and Lewis-Beck, 'Comparative Democracy'; Diamond, *Developing Democracy*. For issues on the measurement of democracy, see Kenneth Bollen, 'Political Democracy: Conceptual and Measurement Traps', in Alex Inkeles, ed., *On Measuring Democracy* (New Brunswick, NJ: Transaction, 1991), pp. 3–20.

TABLE 6 *Sensitivity Analysis I: OLS Estimates with Additional Control Variables or Freedom House Data*

	Model 1 *ALL*	Model 2 *LDC*	Model 3 *ALL*	Model 4 *LDC*	Model 5 *ALL*	Model 6 *LDC*	Model 7 *ALL*	Model 8 *LDC*
TRADE	− 0.0028***	− 0.0033***	− 0.0025***	− 0.0027***	− 0.0025***	− 0.0027**	− 0.0023***	− 0.0025**
FDI	5.4310*	6.3762**	5.5593*	5.7162	5.6112*	6.1508*	8.4656**	10.5950**
PORTFOLIO	4.1119**	4.9084**	2.7475	3.6058	2.6123	3.1767	5.6914	3.4633
DIFFUSION	0.2369**	0.2971***	0.3141***	0.3915***	0.3124***	0.3928***	0.2844***	0.3558***
YEAR·FDI	− 0.0027*	− 0.0032**	− 0.0028*	− 0.0029	− 0.0028*	− 0.0031*	− 0.0043**	− 0.0053**
YEAR·PORTFOLIO	− 0.0021**	− 0.0025**	− 0.0014	− 0.0018	− 0.0013	− 0.0016	− 0.0029	− 0.0017
GINI	− 0.6336*	− 0.9099*			− 0.1091	− 0.3664	0.0950	− 0.2263
EDUCATION			0.1417	0.1137	0.1343	0.0879	0.2889***	0.2457**
N	2,021	1,640	1,662	1,281	1,662	1,281	1,783	1,353
Adjusted R^2	0.93	0.90	0.93	0.91	0.93	0.91	0.93	0.91

	Model 9 *ALL*	Model 10 *LDC*	Model 11 *ALL*	Model 12 *ALL*	Model 13 *ALL*	Model 14 *ALL*	Model 15 *LDC*
					Freedom House Data		
TRADE	− 0.0018**	− 0.0012	− 0.0016**	− 0.0026***	− 0.0006	− 0.0007*	− 0.0007*
FDI	6.2954**	8.0087**	6.8347**	4.8632*	5.8462**	4.3957*	5.3203*
PORTFOLIO	4.5246***	5.7176**	3.9381***	5.1121***	2.3640*	2.4035**	1.6529
DIFFUSION	0.2576***	0.3073***	0.1345	0.2902***	0.1151***	0.0995***	0.1209***
YEAR·FDI	− 0.0032**	− 0.0040**	− 0.0035**	− 0.0025*	− 0.0030**	− 0.0022*	− 0.0027*
YEAR·PORTFOLIO	− 0.0023***	− 0.0029**	− 0.0020***	− 0.0026***	− 0.0012*	− 0.0012**	− 0.0008
INGOs	0.0002**	0.0007***					
SEMIPERIPHERY·DEVELOPMENT				0.0170**	− 0.0035		
PERIPHERY·DEVELOPMENT				− 0.0046	− 0.0117		
EUROPE			0.0148				
MIDDLE EAST			− 0.7589**				
AFRICA			− 0.5427**				
ASIA			− 0.1591				
N	1,949	1,568	1,879	1,826	1,705	1,784	1,421
Adjusted R^2	0.93	0.90	0.93	0.93	0.94	0.94	0.90

Notes: One-tailed tests: *** Significant at 1 per cent; ** Significant at 5 per cent; * Significant at 10 per cent. White robust standard errors adjusted for clustering over country in parentheses. Other independent variables in Table 4 not reported to save space. Models 5–6 include while Models 7–8 exclude ECONOMIC DEVELOPMENT and its interaction term.

TABLE 7 *Sensitivity Analysis II: Parameter Estimates from Alternative Estimators*

	Fixed Effects (country)	Fixed Effects (year)	Random Effects	OLS & PCSE	GEE
All Countries					
TRADE	0.0004	− 0.0027***	− 0.0030***	− 0.0029***	− 0.0027***
FDI	8.796**	4.786*	5.196	5.191*	4.903*
PORTFOLIO	0.515	3.545*	4.724	4.724	4.704**
DIFFUSION	0.197	0.285***	0.244***	0.244***	0.237***
INFLATION	0.006	0.039	0.060	0.060	0.067**
ECONOMIC GROWTH	0.004	0.005	0.007	0.007	0.007
ECONOMIC DEVELOPMENT	45.851***	36.566***	34.290***	34.260**	32.634***
PRIOR DEMOCRACY	0.797***	0.925***	0.927***	0.927***	0.934***
YEAR	0.262***	0.157***	0.151***	0.151**	0.145***
YEAR·INFLATION	− 0.000003	− 0.00002	− 0.00003	− 0.00003	− 0.00003**
YEAR·FDI	− 0.004**	− 0.002*	− 0.003	− 0.003*	− 0.002*
YEAR·PORTFOLIO	− 0.0003	− 0.002*	− 0.002	− 0.002	− 0.002**
YEAR·DEVELOPMENT	− 0.023***	− 0.018***	− 0.017***	− 0.017**	− 0.016***
Constant	− 517.172***	− 312.65***	− 302.064***	−301.820**	− 288.835***
N	2,021	2,021	2,021	2,021	2,021
Adjusted R^2	0.93	0.93	0.93	0.93	
LDC Countries					
TRADE	− 0.000005	− 0.0030***	− 0.0032***	− 0.0032***	− 0.0029***
FDI	11.075**	5.183*	5.836	5.836*	5.536*
PORTFOLIO	− 1.311	4.652*	5.389	5.389	5.882**
DIFFUSION	0.185	0.358***	0.292***	0.292***	0.290***
INFLATION	0.006	0.024	0.054	0.054	0.061**
ECONOMIC GROWTH	0.003	0.004	0.007	0.007	0.007
ECONOMIC DEVELOPMENT	24.572	41.139**	36.764**	36.764*	35.577**
PRIOR DEMOCRACY	0.792***	0.922***	0.924***	0.924***	0.934***
YEAR	0.186*	0.171***	0.159**	0.159*	0.154***
YEAR·INFLATION	− 0.000003	− 0.00001	− 0.00003	− 0.00003	− 0.00003**
YEAR·FDI	− 0.006**	− 0.003*	− 0.003	− 0.003*	− 0.003*
YEAR·PORTFOLIO	0.001	− 0.002*	− 0.003	− 0.003	− 0.003**
YEAR·DEVELOPMENT	− 0.013	− 0.021**	− 0.018**	− 0.018*	− 0.018**
Constant	− 368.001*	− 340.864**	− 317.847**	− 317.847*	− 306.119***
N	1,640	1,640	1,640	1,640	1,640
Adjusted R^2	0.91	0.91	0.90	0.90	

Notes: One-tailed tests: * Significant at 10 per cent; ** Significant at 5 per cent; *** Significant at 1 per cent. White robust standard errors estimated for fixed effects models and GEE model.

precarious.[57] In addition to institutional aspects directly measured in Polity III, Freedom House data also capture aspects that are only indirectly implied in Polity III, such as the *de facto* power of the opposition, freedom from foreign domination, minority rights, freedom of expression and belief, association rights, rule of law, human rights and personal economic rights.

Unlike Polity III, Freedom House data are only available since 1973. In their overlapping period, the cross correlation between the two datasets is relatively high: 0.88 from a sample of all countries, and 0.83 from a sample of the LDCs. Indeed, the inferences from the Freedom House-based models in Table 6 do not differ much from the inferences from the Polity III-based models in Table 5.[58] Across Models 13–15, the effect of TRADE is always negative and statistically significant in two cases. The effect of DIFFUSION is always positive and significant. The positive effect of FDI and the negative effect of its interaction term are always significant. The positive effect of PORTFOLIO and the negative effect of its interaction term are significant in two cases.

Compared with Table 5, the results for Models 14–15 based on the Freedom House data are weaker in terms of statistical significance for portfolio investments. We believe this is because Freedom House also measures civil rights and democratic norms that take a relatively long time to develop. The Freedom House index typically lags behind the Polity III index and has a smaller variance.[59] As the Freedom House index varies less, the results are less significant. Furthermore, as portfolio investments in the LDCs are small and concentrated in the elite, their effect can be large in terms of constraints on the executive, which is the focus of Polity III, but is likely to be smaller in terms of the civil rights, which is captured by the Freedom House.

Table 7 presents the results from using five estimators: country fixed effects, year fixed effects, random effects, ordinary least squares (OLS) with panel corrected standard errors (PCSE), and general estimating equation (GEE) model.[60] All cases, including those in Table 5, have roughly the same model goodness-of-fit. The estimates in Table 7 are generally similar to those in Table 5 except for the country fixed effects estimator.

Scholars debate the merits of panel data estimation methods. While this article is not about methods, we believe the estimator used in Table 5 (OLS with White robust standard errors adjusted for clustering over countries) is the most appropriate for our case. Beginning with the fixed effects estimators, King argues that using more elegant statistical

[57] Diamond, *Developing Democracy*.

[58] Like Burkhart and Lewis-Beck, we sum the two 7-point scales of ‘political rights’ and ‘civil liberties’ in Freedom House (see Burkhart and Lewis-Beck, ‘Comparative Democracy’). This procedure gives an index ranging between 2 (lowest democracy) to 14 (highest democracy). We also recompute DIFFUSION and PRIOR DEMOCRACY based on this score.

[59] For example, for Bulgaria, the Polity score rose from −7 in 1989 to +8 in 1991, a 75 per cent increase (within a range of 20 from −10 to +10), while the Freedom House score rose from 2 in 1989 to 9 in 1991, a 53 per cent increase (within a range of 13 from 2 to 14). For another example, for Russia over the same time frame, the Polity score rose from −4 to +6, a 50 per cent increase, while its Freedom House score rose from 5 to 7, a 15 per cent increase.

[60] As detailed in William H. Green, *Econometric Analysis* (Englewood Cliffs, NJ: Prentice Hall, 1997), the country fixed effects estimator assumes that the intercept term varies across panels, the year fixed effects estimator assumes that the intercept term varies across years, and the random effects estimator assumes that the error term varies across panels. The PCSE method assumes that the variance of the error term is heteroscedastic across panels and homoscedastic within panels (Beck and Katz, ‘What to Do (and Not to Do) With Time-Series Cross-Section Data’). GEE is a population-average-based estimator that is frequently used for panel data (K. Y. Liang, and S. L. Zeger, ‘Longitudinal Data Analysis Using Generalized Linear Models’, *Biometrika*, 73 (1986), 13–22).

techniques is preferable over fixed effects estimation.[61] This approach is taken in Table 5. In simulations, fixed effects estimators are known to soak up excessively between-country variations attributable to substantive variables, and reduce degrees of freedom due to the inclusion of many dummy variables. Unless the number of time periods approaches infinity, the estimated effects are inconsistent for the country fixed effects estimator.[62] Since we have twenty-seven periods, we may suffer from this problem, which could explain why the results from the country fixed effect estimator differ noticeably from those from the other estimators.

The applicability of the random effects model for a certain dataset can be tested using an appropriate Lagrange multiplier test. The null hypothesis is that the random effect model is not supported by the data.[63] Conducting this test, we are not able to reject the null hypothesis, indicating no evidence in favour of the random effect model in our case.

The OLS with PCSE estimator assumes that the variance of the error term is heteroscedastic and contemporaneously correlated across panels, and homoscedastic within panels.[64] The PCSE estimator may not be appropriate in our case since in Table 5 several variables have time-varying effects, suggesting the possibility of heteroscedastic errors over time. The estimator we used in Table 5 does not assume a certain structure of heteroscedasticity or serial correlation, making it more appropriate for our purpose. One advantage of the PCSE method is its ability to correct for correlated errors across panels. However, as Beck and Katz note, a better strategy is to model this correlation theoretically, which is achieved by our DIFFUSION variable.[65]

The results from the GEE method in Table 7 are identical in terms of hypothesis testing to the results in Table 5. This outcome further supports our claim that our results are generally robust when different estimators are used (except the country fixed effect variant).

Turning to the results for the new control variables in Table 6, Feng and Zak argue that a fall in income inequality and a rise in education raise the likelihood of democratic transitions.[66] While our analysis differs from Feng and Zak (we include economic openness, study the level of democracy and our sample is larger), our results generally agree with theirs. In Models 1 and 2, the effect of GINI is negative and significant (a rise in inequality reduces democracy). In Models 7–8, the effect of EDUCATION is positive and significant when ECONOMIC DEVELOPMENT is excluded. Similar to Feng and Zak, when ECONOMIC development IS INCLUDED (Models 3–6), the effect of EDUCATION is positive but insignificant. As they explain, this is because EDUCATION and ECONOMIC DEVELOPMENT are correlated.[67]

The effect of INGOs on democracy is positive and significant in Models 9–10. These results demonstrate that membership in INGOs increases the level of democracy in a member country, supporting the argument in Keck and Sikkink and Risse and Sikkink.[68]

[61] Gary King, 'Proper Nouns and Methodological Propriety: Pooling Dyads in International Relations Data', *International Organization*, 51 (2000), 497–507.

[62] See Green, *Econometric Analysis*, p. 632.

[63] See Green, *Econometric Analysis*, p. 628.

[64] See Beck and Katz, 'What to Do (and Not to Do) With Time-Series Cross-Section Data'.

[65] See Beck and Katz, 'What to Do (and Not to Do) With Time-Series Cross-Section Data', p. 642.

[66] Feng and Zak, 'The Determinants of Democratic Transitions'.

[67] When included with EDUCATION (Models 5–8), the effect of GINI is negative, as in Feng and Zak, but is not significant. This is attributed to the above differences between our model and theirs.

[68] Keck and Sikkink, *Activists Beyond Borders*; Risse and Sikkink, 'The Socialization of International Human Rights Norms into Domestic Practices'.

The coefficients of the regional dummies in Model 11 measure the effect of being in some region on democracy, relative to the American continent.[69] The results indicate that relative to the American continent, the level of democracy in the Middle East, Africa and Asia is lower, but roughly the same as in Europe. As could be expected, when the regional dummies are included, the effect of DIFFUSION (which correlates with regional effects), while still positive as in Table 5, is now insignificant.

The effects of world position on democracy are examined in Models 12–13. In Model 12, the effect of SEMIPERIPHERY is positive and significant, and the effect of PERIPHERY is negative and insignificant. However, in Model 13, which uses the Freedom House data as in Burkhart and Lewis-Beck, both variables are negative and neither is significant.[70] Our results differ from Burkhart and Lewis-Beck as they find negative and significant effects for both PERIPHERY and SEMIPERIPHERY interaction terms. We believe one reason for the difference has to do with the sample. Their data stop in 1989 while ours stop in 1996, capturing post-Cold War democratic transitions in many of the semi-periphery countries (for example, Bulgaria, Czechoslovakia). A second reason has to do with the difference between the Polity III and the Freedom House data. As noted, the measure based on Polity III has a larger variance than that of Freedom House. Polity III focuses on the changes in institutional constraints on the leaders of the executive branch while Freedom House also covers the gradual changes in civil rights. These are also reflected in the world position variables, particularly SEMIPERIPHERY.

In summary, the sensitivity analysis demonstrates that our results are robust. With that in mind, we now turn to the policy implications of our findings.

CONCLUSION

The theoretical literature presents conflicting expectations on the effect of globalization on democracy. These conflicting expectations are also reflected in the public debate on globalization. In this article, we make a systematic empirical effort to assess the controversial effects of globalization on democracy. We believe that our analysis is the first attempt to address this controversy statistically in a large sample. Our results hold important implications not only for future research but also for the policy debate about globalization.

Our analysis should be understood as part of a larger-scope research programme on the effects of globalization. While our results are robust to various perturbations, our research could be extended in several directions. One possibility is to expand the temporal domain of our analysis. Another possibility is to apply a simultaneous equations model with several endogenous variables. It will also be useful to develop new theories on the effect of globalization on democracy, or carry out in-depth comparative case studies of the interactions between democracy and the global economy. Since the phenomenon of globalization is most likely here to stay and intensify, the stakes are high in better understanding the relationship between globalization and democracy.

We find that trade openness and portfolio investment inflows exert a negative effect on democracy. The negative effect of trade is constant over time whereas the effect of portfolio investments strengthens. FDI inflows affect democracy positively, but the effect weakens over time. The spread of democratic ideas promotes democracy persistently over time.

[69] We exclude one dummy to prevent falling into the dummy variable trap (see Green, *Econometric Analysis*).

[70] Burkhart and Lewis-Beck, 'Comparative Democracy'.

These patterns hold for all countries and the LDCs alone. They are also robust across various model specifications, different measures of democracy and alternative statistical estimators. In sum, the economic aspects of integration into the world economy are beginning to cause a decline in national democratic governance.

If economic efficiency maximization is the only policy goal, then the negative effects of globalization on democracy do not matter. However, if democratic governance is a desirable policy objective, our findings suggest a policy dilemma between economic efficiency gains and democratic decline. This then ought to cause concern for both policy makers and academicians.

Our analysis implies that globalization erodes the prospects for democracy. The post-1945 model of embedded liberalism served to sustain democratic governance in the DCs with open economies. However, this model cannot be easily implemented in LDCs in the current globalization. The emerging democracies among the LDCs lack the financial and managerial resources needed to build social safety nets. As trade liberalization continues, the negative effect of trade on democracy may increase.

Similarly, the growing capital mobility accompanying globalization produces a political dilemma for governments who want both economic competitiveness and democratic political accountability. Footloose capital is generally not accountable to the public. The mobility of capital reduces democratic governments' ability to respond to popular demands for social welfare and effective economic management. Our findings imply that under economic openness, the room for policy manœuvring is obviously reduced. Hence, the threats to democracy from financial inflows and foreign direct investments are substantial.

If the current trend in the effect of globalization on democracy continues, our finding that the increasing number of democracies in a region is associated with greater democracy may reveal a 'diabolic' flip side. That is, as trade, FDI and financial flows become increasingly associated with democratic decline, the number of democracies in a region may also decline, which in turn may contribute to a decrease in the number of democracies.

How can one alleviate the negative effects of globalization on democracy? We believe there are basically three possibilities. The first possibility is for there to be one world government, managing one economic system, without any barriers to the flows of goods, financial capital and other factors of production. The tradeoff between efficiency gains and democratic decline can then be effectively managed. We believe this option is currently impractical.

A second possibility is to enhance the socio-economic policy co-ordination among governments within the existing international system. For example, concerted tax policies could minimize excessive financial capital volatility in an integrated global financial market. With policy co-ordination, countries could continue to benefit from the globalizing economy while minimizing the harmful effects for democracy. However, one will also notice the weakness of such an option. Historically, international socio-economic policy co-ordination was generally unstable. Within the existing international political system, each national government is accountable to its own people. The option based on policy co-ordination, then, is difficult to achieve and sustain over time.

A third possibility is to slow down the rate of globalization. For example, governments could design tax and subsidy policies to compensate the losers from economic openness, slow down capital movements and reduce its excessive volatility, and curtail by law excessive rent seeking by MNCs. To be successful, this approach would require co-ordinated market regulation that involves the government, the private sector and citizen advocacy groups, implying wide consultation with and under close monitoring by the private sector and citizen advocacy groups. The purpose of such co-ordination is to minimize the reliance on the government alone to design and implement the regulation. Governments, particularly in the LDCs, are notorious for their inefficiency and inflexibility. Relying solely on governments may suffocate the market. Where democratic rules are not well established, as in many LDCs, the notion that only the government can correct for market failures may cause excessive government intervention, lower social welfare and eventually precipitate a decline in democratic governance. While this option may yield lower social welfare relative to the first two possibilities, it may be the only practical approach at present to reduce the negative effects of globalization on democracy.

APPENDIX: *Descriptive Statistics for Level of Democracy Used in Estimation (127 countries, 1970–96)*

Code	Country	OBS	MEAN	STDDEV	MIN	MAX
AGO	Angola	11	− 2.55	3.53	− 7	0
ALB	Albania	6	4.50	1.76	1	6
ARG	Argentina	21	3.24	7.72	− 9	8
ARM	Armenia	1	− 6.00		− 6	− 6
AUS	Australia	22	10.00	0.00	10	10
AUT	Austria	22	10.00	0.00	10	10
AZE	Azerbaijan	3	− 5.33	1.15	− 6	− 4
BDI	Burundi	12	− 4.33	3.28	− 7	0
BEN	Benin	20	− 2.65	7.07	− 7	9
BFA	Burkina Faso	19	− 4.79	3.87	− 7	5
BGD	Bangladesh	22	− 1.86	5.60	− 7	6
BGR	Bulgaria	11	2.55	7.57	− 7	8
BHR	Bahrain	15	− 9.73	0.46	− 10	− 9
BLR	Belarus	5	0.00	7.00	− 7	7
BOL	Bolivia	9	9.00	0.00	9	9
BRA	Brazil	22	3.14	5.81	− 4	8
BWA	Botswana	22	9.00	0.00	9	9
CAF	Central African Republic	16	− 6.06	3.23	− 7	6
CAN	Canada	22	10.00	0.00	10	10
CHE	Switzerland	14	10.00	0.00	10	10
CHL	Chile	22	− 0.77	6.98	− 7	8
CHN	China	15	− 7.00	0.00	− 7	− 7
CIV	Cote d'Ivoire	21	− 8.14	1.28	− 9	− 6
CMR	Cameroon	13	− 7.54	0.52	− 8	− 7
COL	Colombia	16	8.06	0.25	8	9
COM	Comoros	15	− 1.93	5.30	− 7	4
CRI	Costa Rica	19	10.00	0.00	10	10
DNK	Denmark	20	10.00	0.00	10	10
DOM	Dominican Republic	18	5.00	2.91	− 3	6
DZA	Algeria	15	− 7.47	2.88	− 9	− 2
ECU	Ecuador	21	7.43	4.15	− 5	9
EGY	Egypt, Arab Rep.	12	− 3.67	0.98	− 5	− 3
ERI	Eritrea	3	− 2.00	0.00	− 2	− 2
ESP	Spain	22	8.86	2.90	0	10
EST	Estonia	5	8.00	0.00	8	8
ETH	Ethiopia	15	− 4.00	4.31	− 8	1
FIN	Finland	22	10.00	0.00	10	10
FJI	Fiji	18	4.78	4.28	− 3	9
FRA	France	22	8.23	0.43	8	9
GAB	Gabon	16	− 6.94	3.23	− 9	0
GBR	United Kingdom	22	10.00	0.00	10	10
GEO	Georgia	4	4.75	0.50	4	5
GHA	Ghana	12	− 4.25	5.19	− 7	6
GMB	Gambia, The	18	5.33	5.54	− 7	8
GRC	Greece	21	9.14	1.01	8	10
GTM	Guatemala	20	0.30	4.87	− 7	8
GUY	Guyana	9	− 5.44	3.09	− 7	0
HND	Honduras	21	4.38	3.41	− 1	7
HTI	Haiti	20	− 4.85	6.02	− 10	7
HUN	Hungary	15	2.87	8.13	− 7	10
IDN	Indonesia	15	− 7.00	0.00	− 7	− 7
IND	India	22	7.95	0.21	7	8

Appendix: continued

Code	Country	OBS	MEAN	STDDEV	MIN	MAX
IRL	Ireland	22	10.00	0.00	10	10
IRN	Iran, Islamic Rep.	13	− 5.54	1.66	− 6	0
ISL	Iceland	20	10.00	0.00	10	10
ISR	Israel	22	9.00	0.00	9	9
ITA	Italy	22	10.00	0.00	10	10
JAM	Jamaica	18	9.89	0.32	9	10
JOR	Jordan	21	− 6.90	3.21	− 10	− 3
JPN	Japan	20	10.00	0.00	10	10
KAZ	Kazakhstan	5	− 1.00	2.74	− 3	2
KEN	Kenya	22	− 6.23	1.11	− 7	− 3
KGZ	Kyrgyz Republic	5	4.20	2.05	2	6
KOR	Korea, Rep.	21	4.52	4.66	− 5	10
KWT	Kuwait	15	− 8.73	1.28	− 10	− 7
LAO	Lao PDR	7	− 7.00	0.00	− 7	− 7
LKA	Sri Lanka	22	5.50	0.91	5	8
LSO	Lesotho	20	− 4.75	5.50	− 7	8
LTU	Lithuania	4	10.00	0.00	10	10
MAR	Morocco	22	− 4.91	1.02	− 9	− 4
MDA	Moldova	1	7.00		7	7
MDG	Madagascar	21	− 2.14	6.51	− 6	9
MEX	Mexico	18	− 0.33	3.01	− 3	6
MLI	Mali	22	− 2.91	6.29	− 7	7
MNG	Mongolia	3	8.33	0.58	8	9
MOZ	Mozambique	12	− 2.42	6.23	− 7	6
MRT	Mauritania	21	− 6.76	0.44	− 7	− 6
MUS	Mauritius	21	9.76	0.44	9	10
MWI	Malawi	18	− 7.06	5.48	− 9	8
MYS	Malaysia	22	4.86	0.35	4	5
NAM	Namibia	7	8.00	0.00	8	8
NER	Niger	11	− 7.00	0.00	− 7	− 7
NGA	Nigeria	20	− 2.60	5.90	− 7	7
NIC	Nicaragua	20	1.25	5.06	− 8	8
NLD	Netherlands	22	10.00	0.00	10	10
NOR	Norway	22	10.00	0.00	10	10
NPL	Nepal	13	3.38	5.19	− 2	8
NZL	New Zealand	22	10.00	0.00	10	10
OMN	Oman	18	− 9.83	0.38	− 10	− 9
PAK	Pakistan	13	5.15	5.23	− 4	8
PAN	Panama	17	0.76	7.57	− 8	9
PER	Peru	8	5.25	3.24	0	7
PHL	Philippines	20	1.70	7.99	− 9	9
POL	Poland	12	4.42	6.57	− 7	9
PRT	Portugal	22	9.73	0.46	9	10
PRY	Paraguay	22	− 2.77	6.63	− 8	7
ROM	Romania	10	3.80	4.69	− 8	8
RUS	Russian Federation	5	4.00	0.00	4	4
RWA	Rwanda	21	− 5.52	2.77	− 7	0
SAU	Saudi Arabia	22	− 10.00	0.00	− 10	− 10
SDN	Sudan	3	7.00	0.00	7	7
SEN	Senegal	21	− 0.10	2.23	− 6	1
SGP	Singapore	21	− 2.00	0.00	− 2	− 2
SLE	Sierra Leone	19	− 6.37	2.52	− 7	4
SLV	El Salvador	21	5.10	5.20	− 6	9

Appendix: continued

Code	Country	OBS	MEAN	STDDEV	MIN	MAX
SVK	Slovak Republic	4	7.00	0.00	7	7
SVN	Slovenia	4	10.00	0.00	10	10
SWE	Sweden	22	10.00	0.00	10	10
SWZ	Swaziland	22	− 9.77	0.43	− 10	− 9
SYR	Syrian Arab Republic	20	− 9.00	0.00	− 9	− 9
TCD	Chad	18	− 3.72	3.23	− 7	0
TGO	Togo	20	− 5.55	2.63	− 7	0
THA	Thailand	21	3.14	3.97	− 7	9
TTO	Trinidad and Tobago	21	8.62	0.50	8	9
TUN	Tunisia	21	− 6.14	2.35	− 9	− 3
TUR	Turkey	19	6.42	5.14	− 5	9
TZA	Tanzania	8	− 3.63	3.85	− 7	1
UGA	Uganda	14	− 4.43	3.20	− 7	3
UKR	Ukraine	3	6.67	0.58	6	7
URY	Uruguay	19	4.42	7.98	− 7	10
USA	United States	22	10.00	0.00	10	10
UZB	Uzbekistan	4	− 9.00	0.00	− 9	− 9
VEN	Venezuela	22	8.73	0.46	8	9
YEM	Yemen, Rep.	6	0.00	0.00	0	0
ZAF	South Africa	3	9.00	0.00	9	9
ZMB	Zambia	14	− 6.86	5.45	− 9	6
ZWE	Zimbabwe	18	− 1.72	4.64	− 6	5