IN MEMORIAM

COMMENTS

Empire: Public Goods and Bads,
Christopher J. Coyne and Steven Davies 3-45

Death and Taxes, including inflation: The Public versus Economists,
Jeffrey Rogers Hummel 46-59

Textbooks and Pure Fiscal Policy: The Neglect of Monetary Basics,
Lee C. Spector and T. Norman Van Cott 60-70

Handling Economic Freedom in Growth Regressions: Suggestions for Clarification,
Julio H. Cole and Robert A. Lawson 71-78

Handling Economic Freedom in Growth Regressions: A Reply to Cole and Lawson,
Jakob de Haan and Jan-Egbert Sturm 79-82

DO ECONOMISTS REACH A CONCLUSION?

Do Economists Reach a Conclusion on Household and Municipal Recycling?
Matthew Gunter 83-111
CHARACTER ISSUES

The Practical Utility of Economic Science, Edwin Cannan 112-124

ECONOMICS IN PRACTICE

Reasons for Supporting the Minimum Wage: Asking Signatories of the “Raise the Minimum Wage” Statement, Daniel B. Klein and Stewart Dompe 125-167
In Memoriam
Empire: Public Goods and Bads

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ABSTRACT

THE ARGUMENT IN FAVOR OF BENEVOLENT STATES OR COALITIONS of states actively intervening in the internal affairs of other sovereign states has recently become fashionable after being out of favor or simply forgotten for many years. Today the argument tends to be associated, explicitly or otherwise, with a Hobbesian kind of perspective that asserts the need for a benevolent hegemon at the international level and in certain cases the national level. The underlying argument is that social order will not arise spontaneously, but will require the use or sanction of force and, hence, a dominant power. The argument has two forms, which are connected but need to be distinguished.

The first (made most notably by Niall Ferguson) argues that in the modern world a global hegemon is needed to provide public collective goods at a global level, such as: (a) a stable world monetary order, (b) protection against pirates, organised crime, ‘rogue states,’ and other predators, (c) a stable set of rules for transnational trade and finance, and (d) a body of rules that will govern inter-governmental relations and conflicts. For the Western Hemisphere since at least the 1890s, this function, says Ferguson and others, has been met by the United States, and

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for the rest of the world up to the 1940s by the British Empire and since then by the United States, particularly since 1989.

The second form of the argument, sometimes called “nation building,” (represented by Francis Fukuyama and also argued by Ferguson) is that while in much of the world the core public goods of defense against violent predation, the rule of law, and stable property rights are provided by existing legitimate states, in many cases the officially recognized state is too weak or corrupt to provide them effectively or even at all (Fukuyama 2005, Ferguson 2003, esp. ch. 4). Such ‘failed states’ are not only a problem for those unfortunate enough to have to live under them but for the rest of the world as well, both because of spillover effects and because they undermine the stable international order. The list of ‘failed states’ typically includes such cases as Haiti, Somalia, and Afghanistan, but is sometimes broadened to include almost all of Africa and much of Latin America and the Middle East and Central Asia. Such cases call for intervention by an outside power or hegemon to provide the needed public goods and in the longer term, to create a self-sustaining domestically-rooted political order that can provide such goods for the country in the future. Note that in either form, the argument holds that actual direct imperialism, and more general intervention and ‘nation building,’ are the means by which the imperial powers, and particularly the actual or aspiring global hegemon, provide a kind of service by supplying public goods, and that this can be done directly or indirectly via local proxies backed up by the threat of intervention.

Over the past several years the number of economists exploring the benefits of foreign military interventions has been on the rise. Economists contributing to this literature include Charles Kindleberger (1981), Deepak Lal (2001, 2004) and Niall Ferguson (2003, 2004). A recent paper by Kris James Mitchener and Marc Weidenmier, entitled, “Empire, Public Goods, and the Roosevelt Corollary,” published in the *Journal of Economic History* in 2005, paints a favorable view of US intervention in Central America. They treat the Roosevelt Corollary and the associated US posture as productive of financial stability and peace. The United States served as “the region’s ‘policeman’ and a promoter of peace and regional stability” (Mitchener & Weidenmier 2005, 659). Mitchener & Weidenmier analyze the average sovereign debt price for countries in Latin America covered by the Corollary and find that sovereign debt prices rose by 74 percent following the announcement of the policy in 1904. Their analysis falls into the first category discussed above—the need for a regional hegemon to provide public goods.
In a similar vein, another recent article in the *Journal of Economic History*, “The Empire Effect: The Determinants of Country Risk in the First Age of Globalization, 1880-1913,” by Niall Ferguson and Moritz Schularick (2006), praises the British empire for providing its colonies with stability in trade and monetary policy. Ferguson & Schularick study the differences between the spreads on British colonial bonds and the bonds issued by countries independent of Britain and conclude that British colonies were able to borrow at significant discounts. This “empire effect,” as they call it, significantly reduced the default risk perceived by investors because the British presence signaled a commitment to maintain sound policies in the colonies. Although not our main focus, we draw attention to this piece because like the Mitchener & Weidenmier article, Ferguson & Schularick focus narrowly on the benefits of imperialistic activity while failing to acknowledge the associated bads. These two papers, appearing within twelve months of each other in the *Journal of Economic History*, serve to represent the broader treatment and biases of the analysis of imperialistic and hegemonic activity, and the degree to which this argument is finding expression.

In our view, the recent pro-empire writings have been largely one-sided, mainly focusing on the goods that empires can produce while neglecting the bads. Every economist knows that actions have unintended consequences, that actions have costs as well as benefits. Every economist understands that the issue is one of comparative evils. So it is a question of broad judgment.

As a policy issue, foreign policy is particularly messy and difficult. The consequences of military action come in the target country, the neighboring countries, other countries that might fall within strategic ambit, rival countries, and the imperialistic country itself. Our understanding of these consequences is limited. The cultural and geo-political mechanisms in play are daunting and sharply disputed. Moreover, every occasion is highly unique. Certain past interventions look like great successes, others abysmal failures. This isn’t rent control, agricultural subsidies, or slavery, where one may take a firm position for abolition.

Our own sensibilities lead us to be terribly skeptical of—and generally predisposed against—imperialistic projects, even those of the better governments (like those in the United States or Britain). Just as the analysis of Adam Smith, Ludwig von Mises, Friedrich Hayek, James Buchanan, Gordon Tullock and hundreds of associated scholars leads us to be skeptical of inspired claims about what government action can repair in the domestic sphere, so we can apply that kind of analysis, and more
general economic analysis, to imperialism and interventionism, and again arrive at skeptical conclusions regarding proclaimed ends and actual results evaluated more generally. The concept of government failing in its attempts to resolve a public goods problem clearly applies to empire, nation building, and intervention just as much as, indeed, even more than, it does to domestic social programs and schemes of economic management. Empirical tests will show how such actions often clearly fail in terms of their own stated objectives and justifications.\footnote{One interesting issue, which is beyond the scope of this paper, is that of why so many scholars who are appropriately skeptical and hard headed when it comes to domestic policy become the exact opposite when it comes to their government acting outside its national borders.}

What moves us to write this paper is the concern that the bads are being given short shrift. If “corrective” imperialistic projects are, in fact, highly treacherous and tend to be bad on net, then research that paints a misleadingly positive picture can be dangerous. Today’s unfolding events in Iraq, Afghanistan, and the broader Middle East underscore the gravity of these issues.

Our goal here is to help counter the pro-intervention literature, by developing a list of public bads, to be minded in conjunction with potential public goods. The list of potential public bads can be illuminated by looking into the Roosevelt Corollary and the associated interventions of that period. A point to emphasize is that, just as in other areas, the bad consequences of government action often become apparent only after the passage of time and then generate calls for further action to correct the consequences of the initial intervention. After considering potential bads, we move to a broader plane, and use the well-known Polity IV index of political institutions to argue for a generally anti-imperialistic view of foreign affairs.

THE JUDGMENT OF MITCHENER & WEIDENMIER AND FERGUSON & SCHULARICK

Before turning to the public bads, we scruple to establish that to which we are reacting against. We are using Mitchener & Weidenmier (2005) and Ferguson & Schularick (2006) as examples and touchstones of pro-empire literature. In what sense are these articles pro-empire?
It is natural to assume that articles of social science entitled “Empire, Public Goods, and the Roosevelt Corollary” (Mitchener & Weidenmier 2005), and “The Empire Effect: The Determinants of Country Risk in the First Age of Globalization, 1880-1913” (Ferguson & Schularick 2006), are concerned with the most important things having to do with those topics, and, thus, that neglect of some things should be taken to imply a judgment of their being relatively insignificant. Social science is presumed to serve human purposes, in this case evaluating foreign-policy actions, and the evaluation must ultimately take place from the agent’s point of view—are such actions good on net? In making such an evaluation the good social scientist minds all the most important things. Things that are left out are implicitly deemed less important. To carry out narrow-aspect evaluations without concern or connection to overall evaluation would throw social science into meaninglessness and charade.

In fact, theses articles cannot easily be quoted as pro-empire. But judgment is conveyed in the whole, particularly in omission. To establish this we must quote from each article at length.

The entire abstract from Mitchener & Weidenmier (2005) reads as follows:

In 1904 the Roosevelt Corollary to the Monroe Doctrine proclaimed that the United States would intervene in the affairs of unstable Central American and Caribbean countries that did not pay their debts. We find that the average sovereign debt price for countries under the US “sphere of influence” rose by 74 percent in response to the pronouncement and actions to make it credible. We use this policy change to show that the United States subsequently acted as a regional hegemon and provided the global public goods of increased financial stability and peace. Reduced conflict spurred export growth and better fiscal management, but debt settlements were driven primarily by gunboat diplomacy. (Mitchener & Weidenmier 2005, 658)

Thus, the abstract trumpets the good and is silent about possible bads.

We now quote the conclusion in entirety, and bold bits that, taken together, constitute a general endorsement of the Roosevelt-Corollary policies:
Conclusion [of Mitchener & Weidenmier 2005; bold added]

The history of US imperialism at the turn of the century provides a powerful illustration of the effects of news on financial markets. The Roosevelt Corollary prompted one of the largest bond market rallies in the early twentieth century. Abnormal returns on sovereign debt issued by countries around the Caribbean Sea were sustained in 1904 and 1905, but not in other areas of the globe or Latin America, suggesting that the bond rally was the result of Teddy Roosevelt’s new policy of intervention. Viewing the policy as credible, market participants bid up the price of bonds in anticipation of greater US involvement in resolving debt dispute.

The cost of securing regional hegemony declined as the threat of European intervention in the region receded. As the prices of sovereign debt rose in London, the need for the United States to intervene on behalf of creditors fell because of the primary reason for European intervention (to support creditor claims) became less of a concern. However, the United States did not have to commit to a long-run policy of direct intervention. Its commitment of resources and direct intervention in Santo Domingo sent a signal to countries under its sphere of influence that it was willing to intervene, use “Big Stick” diplomacy, and take away sovereignty; but its chief long-run strategy was to promote peace and regional security. The reduced incidence of conflict in Central America and the Caribbean encouraged exported growth and revenue collection in the region, but the threat of gunboat diplomacy or lost sovereignty, made credible by prompt US intervention in Santo Domingo, led many Central American and Caribbean countries to settle long outstanding defaulted debts. The new American policy was cheaper than repeated direct intervention and improved the prospects of debt settlement by increasing the willingness of Central American countries to pay their debts. It was also incentive-compatible with US commercial and military
interests in the region. The response of financial markets to the corollary made it possible for the United States to provide the public goods of empire, and provision was a cost-effective means of promoting its broader strategic objectives. (690-691)

Thus we get a generally upbeat conclusion about the policies. Moreover, the argument that empires do indeed provide public goods is assumed with no mention of possible associated costs. The authors also explicitly assume that the policy they describe is one that does not require or lead to permanent or long term and repeated intervention, much less actual direct imperial rule.

Do Mitchener & Weidenmier ever acknowledge the possible public bads of empire? Aside from a footnote (note 2 on 659) that merely alludes to “the Leninist critique of imperialism,” the only acknowledgement of potential public bads comes in the article’s first paragraph, which seems to offer an overview of possible consequences of imperialism. We quote the paragraph in full:

Imperialism has long been associated with economic expansion. Political or military power can be used to acquire natural resources and raw materials, create overseas markets for exports, and expand the investment opportunities for home-country investors. Imperialism can potentially lead to the creation of global public goods, such as peace and stability. Imperialism can also transform the economics of supplicants. It can facilitate the transfer of institutions that are amenable to long-run economic growth, or it can disrupt social order, creating political instability and retarding economic growth. (Mitchener & Weidenmier 2005, 658)

The paragraph contains a number of assertions that are debatable, to say the least. There is the initial linking of imperialism with economic expansion. This is contingent at best, given the many cases where economic growth and development has not been associated with or led to imperialism and others where it has in fact been associated with economic decline or stagnation. The second sentence simply asserts the mercantilist idea of ‘trade following the flag’ with no intimation that this kind of policy might be unnecessary or even counterproductive. The remainder of the paragraph
baldly asserts the two arguments for imperialism set out earlier, that it provides global systemic goods for the international system and that it can transfer the required institutions through a process of state building. It is revealing that the objects of imperialism are described as “supplicants,” suggesting that this is something they have requested. Right at the end comes a straggling acknowledgement of possible ill effects for these “supplicants.” The entire article thereafter focuses solely on the public goods, as evidenced by the patterns of sovereign debt prices. There is no further attention to any possible ill consequences. Nowhere is there any acknowledgement of costs for those within the imperial country, nor for those in other places within the strategic ambit. As already shown, the article concludes by asserting the goodness and desirability of the policies.

In a similar fashion, consider the main implication drawn by Ferguson & Schularick (2006) from their conclusion that countries of the British Empire were able to borrow at significantly lower rates than those independent of Britain:

This conclusion has wider implications for historical debates about imperialism and modern debates about economic development. Whatever the impact on Britain of large-scale overseas investment, it can hardly have been disadvantageous to British colonies that they could raise capital in London at rates up to 60 percent lower than comparably endowed sovereign states, or that they were able to attract more British capital than otherwise comparably situated but independent countries. To be sure, indigenous peoples by and large had little say over the ways in which the capital so raised was invested. Conceivably, independent governments might have invested it in ways better calculated to foster economic growth. Yet the record of most postcolonial governments, especially in sub-Saharan Africa, strongly suggests otherwise. The inability of so many former colonies today to attract foreign investment—other than in the form of credits or aid from noncommercial lenders and donors—suggests that there may be a trade-off for poor countries between political sovereignty and creditworthiness. The empire effect encapsulated that trade-off. For many poor countries struggling today to attract foreign investment at affordable rates of
interest, the answer may not be a currency peg or even “structural adjustment,” but the importation (or imposition) of less dysfunctional economic, legal, and political institutions. (2006, 308, bold added).

We heartily agree that institutions matter, but Ferguson & Schularick strongly suggest that foreign insertion or imposition of the institutions is the way to go. Many questions go unanswered. What are the costs of these interventions? What large, long-term problems might result? How will government failure on the part of the imperial powers be corrected? Is actual imperial rule (as opposed to intervention) required for beneficial results and if so how long does it have to last? As in the case of Mitchener & Weidenmier, Ferguson & Schularick do not acknowledge such issues, even in passing. Above all they ignore the fact that many parts of the world that experienced British colonial rule have not enjoyed any long lasting benefits since then. If one of the beneficial results of British rule is the “planting” of institutions such as the common law system and its associated strong protection of property rights (as Ferguson has argued elsewhere) then we must conclude that in many cases such “planted” institutions have not taken root. These scholars are implicitly saying that the hazards involved in the policies they are endorsing are not significant. Why should we assume modern imperialistic interventions would have the same effect as some historical British efforts? What are the associated costs of these interventions? Can these interventions produce “bads” in addition to the “goods” analyzed by Ferguson & Schularick? These questions do not just go unanswered, they fail to be recognized even in passing as in the case of Mitchener & Weidenmier.

These two articles were published in the Journal of Economic History within twelve months. Both represent the one-sided approach that some scholars bring to the study of imperialistic and hegemonic interventions and also highlight how arguments for the general utility of imperialism are increasingly made and accepted.

THE PUBLIC BADS OF EMPIRE, NATION BUILDING, AND THE LIKE

In addition to the usual problems of government action, imperialism and hegemonic interventionism have inherent features that spell “public bads” at both the global and local level. Moreover the ability of this kind of
action and governance to succeed in the public goods that are their supposed justification is doubtful and needs to be measured against actual alternatives, notably a policy of peace, open trade, and easy immigration. To our knowledge, there has yet to be a comprehensive list of potential public bads associated with imperialism and hegemonic interventionism. We begin to fill this gap by proposing the following list of public bads:

1. Imperialism is clearly connected to and correlates with a growth of active and paternalistic government at home. The paternalistic notion of government that is used to justify imperial adventures is often applied at home and generates bad public policy there.

2. Imperialism diverts precious attention away from the basic contest between government and liberty by focusing on foreign activities instead of the actions of government at home.

3. Imperialism and intervention leads to high levels of military spending with a long run tendency for these to grow until a fiscal limit is reached. This reflects the way the process of intervention tends to continue and grow, so leading to the well attested phenomenon of “imperial overreach.”

4. The need to justify the intervention and sustain support for it leads to protectionism of the classic colonial kind and to a system of favors and privileges being given to domestic interests and collaborators. The domestic interests concerned then become a lobby for subsequent interventions.

5. Imperialism and intervention by a hegemonic power creates client ruling elites that are typically both brutal and corrupt because of their position and frequently incompetent to boot. They are not good providers of public goods by most measures. (The Dominican Republic, Haiti, Nicaragua, El Salvador are just a few of many possible examples).

6. The benefit that imperialism brings to elites in the shape of rents and positions of power both consolidates their position and makes social change and economic development more difficult.

7. Some semblance of short-term stability through the installation of a puppet regime will often result in long-term instability and the need for further intervention as in the case of US interventions in Latin America.
8. The client elites created by intervention do not have an interest in sustained economic development. On the contrary, such a process is not in their interest because it would lead to competition for the privileged position that they hold via the hegemonic power and so they tend to hinder it.

9. The way both subaltern elites and hegemonic elites work leads to the emergence of what is usually called “crony capitalism,” deriving from the use of political power to benefit certain highly specific groups rather than broad categories or classes. The Philippines are a classic example.

10. The opposition that intervention and actual empire provoke will either consist of would-be predators who wish to join the action or to groups who, in the context of the United States being the hegemon, reject free markets and liberal governance and follow other ideologies that prove self-defeating.

11. At the international level foreign interventions create competition between rival powers or groups of powers and undermine cooperation between ordinary economic actors because of the way they lead to such phenomena as protectionism, manipulation of the monetary system, military competition, and sometimes war.

12. Imperialistic interventions impose costs on ordinary people in the shape of direct costs such as taxes and indirectly via the protectionism and favoritism that it generates.

13. Foreign interventions promote a way of thinking about the world among the elite in particular but also among others, a way of thinking that leads them to see the world and economic actors as engaged, not in a cooperative process of mutual benefit, but rather in a competitive zero-sum game. For example, that mentality tends to see China’s economic success as a “problem” and a “threat” rather than as a blessing and opportunity.

14. Culturally it is associated with bellicose masculinity, xenophobia, and racism – Theodore Roosevelt being a good example of these.

15. Empirically it is associated with the growth of organized crime. The imperial power creates opportunities that prosper criminal groups, and is typically driven to work with them. Thus US
intervention in the Andean region, Afghanistan and Pakistan (and earlier Burma) has clearly contributed to the appearance of organized crime and the illegal drug trade in those areas.

16. The disorder of failed states is typically in large part a consequence of earlier imperialism - this is clearly the case in Somalia, or indeed all of Africa as well as several cases in Latin America.

17. More generally, imperialism and interventionism check the process of the emergence of spontaneous order and institutions and tend to leave force as the focal means of resolving disputes or supplying any kind of order.

18. One aspect of imperialistic intervention which is particularly important in Latin America and Africa is the way it freezes and sustains political structures and arrangements that are dysfunctional, rather than allowing events and competition between elites to take their course. The goal is often to preserve an existing set of boundaries and institutions rather than let social and political change produce an arrangement that is more effective.

19. Ethnic and religious conflicts are frequently exacerbated due to the imperial power adopting a “divide and rule” strategy. However this can happen even if they do not follow such a strategy, simply because of the differential fortunes of different groups leading to conflicts and because the response to outside rule or intervention frequently leads to the articulation of an identity that excludes some locals as well as the outsiders.

20. At the level of basic meaning to folks on the ground, the troubled society needs to find a process of emergent political legitimacy. The imperial power becomes an additional, awesome, and rather alien force in the internal political romance. This insertion can, we admit, possibly serve as a feared and focal force toward better arrangements—as when a nation-state commits atrocities and is soundly defeated at war, and “the people” feel great shame for what their legitimate government had done. But otherwise, in most cases, even if the foreign powers represent universal ethical goods—freedom and democracy, some might say—any such set of ideals remains far too abstract to serve as a focal guiding principle within the regional romance. Even if it is an angel, a foreign power remains alien. It confuses the legitimacy process, leaving the internal forces
uncertain, distrustful, and unconfident in their own character and identity. “Dependency” goes much beyond supplication—military aid and training, foreign aid, etc. The locals are dependent on the big awesome power for the very narrative of their political lives and identities, and this existential dependency is very often a source of resentment and bitter hatred.

Of course this list is not exhaustive but it does emphasize some of the significant costs and bads associated with imperialism and hegemonic interventionism. As the list indicates, the public bads that imperialism generates diminish the prospects for civil society and bourgeois virtues. In contrast to cooperation, exchange, and cultural contact in the confidence of peaceful sovereignty, the public bads tend to institutionalize force and provoke counter-forces, resulting in cycles of hostility and aggression. Once great levers of political force are inserted into the social equation, particularly alien levers that can act unpredictability and catastrophically for any individual group, every group must become anxious to gain favor with or control of those levers, if only as a matter of self-preservation and protection, but inevitably also as a tool of predation and self-exaltation.

PUBLIC BADS IN THE CASE OF LATIN AMERICA

Given the list of potential public bads put forth above, we return to Mitchener & Weidenmier’s analysis of US intervention in Latin America. After exploring the historical context of US interventions we provide some narratives about the instantiation some of the public bads in the place and time (extended time) of the Mitchener & Weidenmier investigation.

In December 1904, President Theodore Roosevelt outlined the main tenets of what would become known as the Roosevelt Corollary to the Monroe Doctrine:2

Chronic wrongdoing, or an impotence which results in a general loosening of the ties of civilized society, may in America, as elsewhere, ultimately require intervention by

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2 For a brief history of the Monroe Doctrine as well as an analysis of the doctrine's impact, see Gilderhus 2006.
some civilized nation, and in the Western Hemisphere the adherence of the United States to the Monroe Doctrine may force the United States, however reluctantly, in flagrant cases of such wrongdoing or impotence, to the exercise of an international police power (Roosevelt 1910: 176-7).

In addition to specifying his “big stick” foreign policy, Roosevelt indicated that the United States would serve as the protectorate of the Western Hemisphere using military force where necessary. The United States had a history of military intervention in Latin American prior to Roosevelt’s Corollary. For instance, the United States had intervened in Cuba in 1898 under President William McKinley in the Spanish-American War, following the sinking of the *USS Maine* in the port of Havana (this had also led to the acquisition of the Philippines, an event that moved Kipling to urge the United States to “Take up the white man’s burden”). Further, from 1903, Roosevelt already had the US military involved in Panama. The official announcement of the Roosevelt Corollary can be seen as the declaration of a foreign policy, based on military intervention or the threat thereof, which had already commenced, with 1898 the likely starting date.

The context to this new policy of active intervention in the lands around the Caribbean was this. The years after 1870 had seen economic growth in most of this area along with a growth in external investment, the most prominent example being Mexico under Porfirio Diaz. However there had also been serious political conflict in several places, most notably the Dominican Republic, Haiti, Colombia and Central America. Most of the states in these areas were classic examples of what would now be called “failed states,” with weak public institutions, severe conflict between rival groups for the control of the state (particularly in Colombia where there was a civil war between 1900 and 1903) and chronically disordered public finances, due to a combination of corruption, feckless spending and significant non-compliance with taxation by much of the population.

The ruling elites of states such as Colombia, Venezuela, Nicaragua, and the Dominican Republic had financed their dysfunctional political systems via the issuing of large amounts of sovereign debt on the

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3 On US interventions in Latin America prior to the Roosevelt Corollary, see Williams 1980, 102-110. See also Healy 1992.
4 For the Diaz regime and its policies see the definitive (and revisionist) biography Garner 2001.
5 For this background see Cardoso, Hoetink, Nicholls, and Deas, all in Bethel 1986.
international financial markets but were increasingly unable to service it. This increasingly led to pressure by bondholders for intervention in the affairs of the region by the great powers in Europe, something that was clearly unwelcome to the United States, given the longstanding Monroe Doctrine. In addition the United States faced intensifying competition for regional influence from European powers, notably Britain, Germany and France, particularly given the increasing interest in an isthmian canal after 1890. The response by the United States was to intervene and to try to create order and stability. Mitchener & Weidenmier (659) highlight one of those early actions: “the United States sent gunboats to Santo Domingo in 1905 and took over customs collections to pay foreign creditors after it defaulted on its external debt and European powers threatened to intervene.” (Revealingly, this did not resolve the problems and led to full-scale intervention and occupation some years later.)

However, the actual response was not the only option available for any US administration. A very simple response would have been to continue the policy followed by Grover Cleveland during his second term and advocated by him after he left office, explicitly in opposition to Theodore Roosevelt, whom he regarded as a disaster. This would have been to let sovereign borrowers default on their debt and allow the (mostly private) bondholders to take the hit and bear the consequences of their (increasingly ill-advised) lending. If necessary the United States could have blocked intervention by European powers without taking on that role itself, while encouraging resort to international arbitration (this was precisely the course of action followed by Cleveland during his second term). The consequence in the short term would have been political upheaval in the region but this would most likely have led to the emergence of a different and more stable kind of political order. However this would have involved a radical reconstruction of borders and sovereignty, most notably in Colombia and Venezuela but also in Central America. That this option was hardly considered then or now shows the hold of the notion that geopolitical boundaries and arrangements should be regarded as sacrosanct and permanent – except where change suits great powers, as in Panama.

There were two key events that actually provoked Roosevelt’s Corollary to the Monroe Doctrine. One was the German involvement in a blockade of Venezuela after the Venezuelan government threatened to

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7 See for example Kelley 1990, 342-345 and Tompkins 1970.
default on outstanding debts in 1902.\(^8\) The Venezuelan crisis raised the prospect of continued European interventions in Latin America in response to future debt defaults. The other was the prospect of an isthmian canal (see Ricard 2006, 19-20), creating the need to protect the “Canal Zone” so that American investors would reap vast benefits, while excluding other rival projects. This should be contrasted with the response of Grover Cleveland to the earlier Venezuelan debt crisis of 1895, and his withdrawing of a treaty for a Nicaraguan isthmian canal in 1885 as “coercive and expansionist” (Kelley 1990, 342).

As the historian Serge Ricard notes, “Until the 1890s, Americans generally considered a coastal defense of US shores sufficient protection from foreign attack” (2006, 20-1). Roosevelt’s “big stick” approach to foreign policy resulted in a tectonic shift, not only in the political and economic relations between the United States and Latin America, but also in the relationship between the United States and Europe. The United States would no longer focus simply on defending its national borders but also the broader Western Hemisphere (Powell 2006, 68-9, 76). The wider ramifications of this policy shift are evident today.

The Roosevelt Corollary was the assertion of a kind of foreign policy. Precisely because it demonstrated a degree of commitment, Mitchener & Weidenmier can instructively attribute concurrent trends in bond prices. However, the posture, ethos, and commitments intrinsic to the Roosevelt Corollary and the US intervention at Santo Domingo in 1905 have consequences beyond the brief and narrow window examined by Mitchener & Weidenmier. Those actions are part of a large package of altered states and probabilities, and it is the package, not individual items, that one must evaluate.

The Roosevelt Corollary would be used by Roosevelt, as well as subsequent US presidents, to justify numerous interventions in Latin America. What were the results of the military interventions in Latin America that occurred after the official announcement of the Roosevelt Corollary? Again, Mitchener & Weidenmier (2005) conclude that the United States, acting as a regional hegemon, provided the global public goods of financial peace and stability—at least in the Caribbean area, if not in Latin America more generally. The increase in the average sovereign debt price would seem to support their case. They also conclude that it led to an

\(^8\) For the debt crisis and the blockade and in particular the German role, see Morris 2002, Mitchell 1996, Anderson 1995, Forbes 1978.
increase in the quality and stability of governance in the region, which the rise in sovereign debt prices reflected.

But closer examination reveals a different and murkier prospect. Even without considering the case of Mexico, where the collapse of the Diaz regime in 1911 provoked a savage revolution and civil war (made worse by US intervention), it is not clear that there was any significant improvement in the quality of governance by a number of indicators even before 1916. The pattern in most cases was for US intervention to lead to short term improvements in the financial stability of governments but for this to be followed by a “relapse” into bad ways, which required further intervention. Moreover, as time passed it became clear that active intervention by the United States as a hegemonic power had produced a number of very severe and adverse long term consequences, seen for example in the Dominican Republic, Haiti, Nicaragua and Colombia.

In the context of mid and late twentieth century geopolitics this led to yet further direct US interventions which made the kinds of consequences listed earlier even worse and more intractable. The underlying principle was that existing states had to be sustained and major unrest to the existing political order averted—major unrest always being a challenge to the vanity of control and the pretense of knowledge, and never being good in the short-term for bond prices. That underlying principle was not questioned, with the result that any unrest was especially likely to be hostile, so strengthening the original rationale. In that case, the principle of preserving the established order becomes self-rationalizing.

Thus in the case of the Dominican Republic Roosevelt imposed an agreement in 1903 that required US control of Dominican customs revenues for a period of fifty years. Initially this led to a stabilization of finances and the floating of loans on the New York market but unrest led to direct military intervention in both 1914 and 1916 and direct US rule from 1916 to 1922. However the state of the public finances required further US intervention (of a non-military kind) in 1929.

This period had very serious consequences for the Dominican Republic in the longer term. In Cuba the constitution drawn up under American supervision contained the so-called Platt Amendment, which provided for control of sovereign debt and for intervention by the United

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9 There is a wealth of literature on the Mexican Revolution and its consequences. For an introductory account see Womack in Bethel 1986.
10 See Schulzinger 1984 and Langley 2002 for more detailed examples.
States “to maintain Cuban independence and a government capable of preserving life, property, and personal liberty” (Kohn 1991, 258). The outcome was a rebellion in 1906 leading to an incipient civil war, which provoked a military occupation by American forces. Further disorders broke out in 1912 and led to a second military intervention in 1917.\(^\text{12}\) There was further intervention between 1921 and 1923 led by General Enoch Crowder.\(^\text{13}\) Disorder continued until finally Batista came to power in 1936.

In Nicaragua the United States intervened in 1909 to remove the Liberal President Jose Santos Zelaya and in 1911 imposed an agreement similar to that applied to the Dominican Republic. However they had to intervene militarily the following year and then again between 1926 and 1933.\(^\text{14}\) As in the Dominican Republic and Cuba the long term consequences, described below, were not good. In Venezuela the outcome was the dictatorship of Juan Vincente Gomez, from 1909 to 1935.\(^\text{15}\) In Colombia the years between 1904 and 1921 saw repeated but unsuccessful attempts to stabilize the public finances and the consolidation of the division between Liberals and Conservatives that would burst into open war in 1948.\(^\text{16}\) Central America saw repeated interventions throughout the period between 1903 and the 1930s but these did not bring about any noticeable increase in political stability or the effective functioning of government—if anything the opposite was the case.\(^\text{17}\)

The pattern of intervention and its consequences is clear when one takes a longer historical perspective. It then becomes apparent that these interventions have not been one-offs but have led to further repeated intervention and that the results have not been either political liberty, social and economic development, or the spread of liberal ideas and institutions. Many have argued that the United States has employed its economic and military force since 1900 to ensure that countries in Central America are continually dependent on the United States. For instance, Walter LaFeber

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\(^\text{12}\) For the Platt Amendment and its consequences see the various works of Perez, especially 1986 and 1984 but also 1978 and 1979. For the historiography of the amendment and its origins see Hitchman and Cummins 1967.

\(^\text{13}\) The role of Crowder and also of Sumner Welles is discussed in Hanson 1994. For a more general account of Cuban history including the way US intervention led to Batista's coming to power see Staten 2005 and Perez 1995.


\(^\text{15}\) For the Gomez regime see Yarrington 2003a, 2003b and Ellner 1995.

\(^\text{16}\) A short and readable survey of the way this division played out between the later 1880s and the ‘violencia’ after 1948 is in Ruiz 2001, 31-58.

(1984), in documenting US-Central America relations, notes how the United States has historically maintained short-run “stability” by supporting illiberal oligarchies that acquiesce to US demands. The cumulative effect of a century of direct and indirect US interventions, according to LaFeber, is a continuing series of “inevitable revolutions.” Given the repressive nature of the political and social system in Central America, the only mechanism of political and social change is through political or violent uprisings. This in turn leads to a situation where political or military threats to US-friendly, although typically illiberal, regimes are met with subsequent direct or indirect US interventions. The circle of initial US interventions, the resulting negative unintended consequences and subsequent repeat US interventions becomes a self-perpetuating trap.18

Yet another negative unintended consequence of continued US interventions in Central America is the ideological backlash against liberal democratic political and economic systems. Not only do many indigenous citizens in Central America view revolution as the only means of change, they also despise capitalism because it is associated with “a brutal oligarchy-military complex that has been supported by US policies— and armies” (LaFeber 1984, 14). This ideological backlash against US-style economic and political institutions make any movement toward sustainable liberal institutions that much more difficult and unlikely. Again, short-term stability in the form of US interventions to quell uprisings and protect friendly regimes has simultaneously produced long-term instability in the form of future uprisings coupled with an ideological backlash against the United States19

Consider a specific example of how US interventions and occupations can generate “public bads” in the form of illiberal and repressive outcomes. Specifically, consider the first effort by the United States to generate social change in the Dominican Republic during the 1916–1924 occupation. A key aspect of the occupation and reconstruction was the disarmament of the populace as part of a broader aim to prevent rebellions. The disarmament policy had a major unintended consequence that became evident with the rise of General Rafael Leonidas Trujillo to power via military coup.

Trujillo, who joined the Dominican National Police during the US occupation, rose quickly through the ranks and was eventually named chief of the army. Trujillo would eventually lead the coup to overthrow President

Horacio Vásquez, who had been elected during the last days of the US occupation. The coup itself, as well as Trujillo’s rule following the coup, made clear a major unintended consequence of the US occupation policy. With the Dominican population disarmed as a result of occupation, there was no military threat to Trujillo. Trujillo had a literal monopoly on force with exclusive control of weapons as well as control over the troops and police that the United States had trained and armed during the occupation. Once in power, Trujillo used this monopoly on force to impose his will on the Dominican populace, using violence.

In summing up the impact of the US occupation of the Dominican Republic, the historian Frank Moya Pons contends that there were benefits to the occupation but also significant costs (1998, 336-339). Infrastructure, including roads and a highway system, the mail system and education, improved. However, along the lines noted above, the military occupation also created a culture of dependence and repression.20 As Moya Pons notes, “the [US] military government had been a government of occupation and as such, had taught the advantages of repressive methods, especially to the members of the police who were now in charge of maintaining order in the country” (1998, 337). Indeed, attempts to create stability via disarmament resulted in an illiberal and repressive outcome. And while there was some form of stability in that Trujillo’s rule lasted for over thirty years, it is far from clear that all parties involved (i.e., the Dominican populace who were tortured or killed) found this stability to be a “public good.”

Similar illiberal consequences can be found in other US interventions in Latin America. For instance, during the third occupation of Nicaragua, the United States created the “Guardia Nacional de Nicaragua” in 1927.21 The creation of this National Guard was intended to provide stability, suppress civil war and support political institutions. However, three years after the exit of US occupiers, Anastasio Somoza García, who the United States had placed in charge of the Guardia, used the military apparatus to seize control of the country’s political institutions. Somoza García established a repressive regime and remained in power until he was assassinated in 1956, when his son, Luis Somoza Debayle, succeeded him and continued his father’s illiberal rule.

Despite the repressive and illiberal nature of their rule, the United States was supportive throughout the Somoza family reign because they

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21 For more on the history of the Guardia Nacional de Nicaragua, see Grossmann 2005.
acquiesced to US demands. US policymakers were fully aware of the Somazas’ repressive methods. When asked in 1939, “how he could support that son of a bitch [referring to Anastasio Somoza Garcia],” President Franklin Roosevelt was quoted as responding, “Somoza may be a son of a bitch, but he’s our son of a bitch” (quoted in Winn 1999, 517).

While the activities of empires may create public goods on some margins, they may simultaneously create public bads on other margins. Given the wide array of actors involved in the activities of empires, benefits may accrue to one or a few groups while others simultaneously experience significant negatives. In recognizing the goods, it is wrong to ignore the concomitant bads. As the case of Nicaragua illustrates, while Somoza Garcia’s political coup in 1936 created some semblance of stability in the form of a family dictatorial rule that lasted into the 1970s, it also had significant negative spillovers on the populace who were repressed under the illiberal regime. The United States may have benefited from this stability, but it is far from clear that the citizens of Nicaragua received a “public good.” Similar stories can be told for much of the rest of Latin America. US interventions beget subsequent US interventions, generating a continued pattern of short-term stability but long-term instability. This pattern creates short-term benefits for some but significant long-term costs for others.

Earlier, we formulated 20 public bads that often come from paternalism. This discussion of the period treated by Mitchener & Weidenmier has aimed to illustrate only some, and we focus on foreign turmoils. But we should like to say something in passing about the effects within the United States. We shall only note that the shift after 1898 was the assertion of a broadened sphere of influence and power, altering the sense of American identity, projecting a narrative of a collective American agency in military affairs, and attenuating the precious attention the public could devote to purely domestic issues.22

But we wish to remark on another consequence: The expanded sphere of power brought with it a clear breakdown of the presumption of equal dignity and autonomy within the sphere, as the locals of the Caribbean or the Philippines were treated as inferior or subaltern. The breakdown in the presumption of equal liberty within the sphere is thought

22 William Graham Sumner (1911, 313) wrote in his 1903 essay “War”: “It will be established as a rule that, whenever political ascendancy is threatened, it can be established again by a little war, filling the minds of the people with glory and diverting their attention from their own interests.”
by some to help explain the rise of Jim Crow. Both contemporary observers, such as the liberal anti-imperialist William Graham Sumner,\textsuperscript{23} and historians such as Dulles (1954, 31) and Woodward (1966, 73) see a direct causal link between illiberalism abroad and illiberalism at home.

**POLITY SCORES: MORE EVIDENCE OF THE BALANCE BETWEEN GOODS AND BADS**

In order to provide an alternative view of the impact of US-led interventions in Latin America, we will utilize the well-known Polity IV Index (Marshall and Jaggers 2003).\textsuperscript{24} The Polity IV Index ranks the political institutions of a country on a 21-point scale of institutionalized democracy. A combined “Polity Score” is then calculated by subtracting the Autocracy (0 to 10) score from the Democracy (0 to 10) score. The resulting scale ranges from +10 (fully democratic) to -10 (fully autocratic). This index is especially useful because data are provided for most countries from the 1800s through 2003.

There are a few special notations for “special circumstances.” These exceptional notations are not to be treated as numeric values. The Polity Index assigns a score of -88 for a “transitional period” entailing the planning and implanting of new political institutions. A score of -77 indicates a period of “interregnum” in which there is a total collapse of centralized political authority. Finally, a score of -66 indicates a period of “interruption” in which some occurrence, such as a foreign military, interrupts the operation of political institutions. If at the end of the “interruption” the pre-war political structure continues to operate, the

\textsuperscript{23} In his classic 1898 essay, “The Conquest of the United States by Spain,” (reprinted in Sumner 1911). Sumner anticipated how US anti-imperialism would intensify what we know as Jim Crow: “For thirty years the negro has been in fashion. He has had political value and has been petted. Now we have made friends with the Southerners. They and we are hugging each other. We are all united. The negro’s day is over. He is out of fashion. We cannot treat him one way and the Malays, Tagals, and Kanakas another way. A Southern senator two or three days ago thanked an expansionist senator from Connecticut for enunciating doctrines which proved that, for the last thirty years, the Southerners have been right all the time, and his inference is incontrovertible” (328-29).

\textsuperscript{24} On the different indices available and why the Polity IV Index is the most reliable and valid, see Munck and Verkuling 2002.
country in question receives the score of -66 for the period of the interruption (Marshall and Jaggers 2003, 15-6).

The categories of democracy and autocracy incorporate several key dimensions. Institutionalized democracy, as defined by the authors of Polity IV, consists of three key elements: (1) the presence of institutions and procedures through which citizens can express their preferences, (2) the presence of institutionalized constraints on the executive, and (3) the guarantee of civil liberties for all citizens in both their daily lives and political participation. The authors define autocracy to be a specific set of characteristics as well. Autocracies “suppress competitive political participation. Their chief executives are chosen in a regularized process of selection within the political elite, and once in office they exercise power with few institutional constraints” (Marshall and Jaggers 2003, 13-14).

To provide some concrete examples of what these scores mean in terms of actual governments, Iraq under the Hussein regime had a Polity Score of –9 in 2002, while Afghanistan scored a –7 under the Taliban in 2000. As of 2003, Egypt scores a –6, Syria a –9 and Saudi Arabia a –10. In contrast, as of 2003, all of the members of the G-8 have a Polity Score of +10 except for France, which scores a +9, and Russia, which scores a +7.

Within this context, let us consider the relevant Latin American countries’ Polity Scores following US military interventions. While Mitchener & Weidenmier focus their analysis on Colombia, Costa Rica, Guatemala, Nicaragua and Venezuela, and show positive effects on the sovereign debt prices for these countries, we wish to consider the broader set of interventions and occupations in Latin American that took place under the Roosevelt Corollary. If these interventions did in fact create global public goods in the form of stability, we should at a minimum observe a consistent Polity Score over time. Further, assuming stability includes sustainable democratic institutions which protect individual rights, provide a set of checks and balances and constrain politicians, we should observe movement toward a higher Polity Score relative to the pre-occupation score.
Table 1:
Polity IV Score – Latin American Interventions
Under the Roosevelt Corollary

<table>
<thead>
<tr>
<th>Country</th>
<th>Occupation Period</th>
<th>Polity Score - Year Prior to Occupation</th>
<th>Polity Score year(s) after end of occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>1906-1909</td>
<td>3</td>
<td>3 3 3 3 3 1</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1909-1910</td>
<td>-5</td>
<td>-3 -3 -3 -3 -3 -3</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1912-1925</td>
<td>-3</td>
<td>-66 -3 -3 -8 -8 -8</td>
</tr>
<tr>
<td>Mexico</td>
<td>1914-1917</td>
<td>-77</td>
<td>-1 -1 -3 -6 -6 -6</td>
</tr>
<tr>
<td>Haiti</td>
<td>1915-1934</td>
<td>-3</td>
<td>0 0 0 -8 -8 -5</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1916-1924</td>
<td>-66</td>
<td>-3 -3 -9 -9 -9 -9</td>
</tr>
<tr>
<td>Cuba</td>
<td>1917-1922</td>
<td>3</td>
<td>3 3 1 3 3 3</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1926-1933</td>
<td>-3</td>
<td>-3 -8 -8 -8 -8 -8</td>
</tr>
</tbody>
</table>

The Polity Scores for those Latin American countries where the United States intervened following the announcement of the Roosevelt Corollary paint a telling picture. While US interventions in Latin America may have increased the average sovereign debt price, they did little to create the stable and sustainable democratic institutions necessary for “civilized society.” Indeed, unless one defines stability as either enabling or creating the conditions for the emergence of illiberal and repressive regimes, the post-Roosevelt Corollary interventions in Latin America can be considered destabilizing to those countries’ political institutions.

Let us consider the Polity Scores listed in Table 1 in more detail. The initial intervention in Nicaragua in 1909, which aimed to quell a civil war, produced a score of -3, which was an improvement of the pre-occupation score of -5. To put this score of -3 in context, Algeria’s 2003 score was -3 while Chad and Togo’s 2003 score was -2. However, the “stability” created by the initial intervention did not last and the United States again intervened in 1912 this time to put down a political rebellion. This second intervention generated a score of -3 which lasted for ten years.
after the occupation before Nicaragua’s score fell to -8. To provide context, a score of -8 indicates political institutions slightly worse than those found in Afghanistan in 2000, which received a score of -7 under the Taliban. The third intervention in Nicaragua in 1926, again to suppress a political uprising, had a similar result generating a Polity Score of -8.

The intervention in Mexico in 1914 failed to produce a consistent improvement in the country’s Polity Score as it slid from -1 five years after the end of the occupation to -6 fifteen years after the final exit of the US military. The intervention in the Dominican Republic in 1916 ultimately resulted in a post-occupation score of -9, slightly better than Saudi Arabia’s 2003 score of -10 and equivalent to Iraq under the Hussein regime in 2002. The occupation of Haiti from 1915-1934 also failed to generate any sustainable change. The initial US intervention was motivated by civil war and instability in Haiti’s political institutions. However, when the United States exited in 1934, a dictatorial regime quickly secured power. The repressive and illiberal tactics employed by the dictatorial regimes of the father-son duo, François (“Papa Doc”) Duvalier (1957-1971) and Jean-Claude (“Baby Doc”) Duvalier (1971-1986), are well known.

Based on the Polity Scores listed in Table 1, the most successful US intervention in Latin America appears to be Cuba, although this success is relative at best. The 1906 US intervention generated a consistent score of +3 for the 15 years following the exit of occupiers. Likewise, the subsequent US intervention in 1917 produced a score of +3. To put this in context, Iran received the same score in 2003. Since the end of the last US occupation in 1923, Cuba has had several short-lived governments followed by the emergence of two oppressive dictatorships, those of Fulgencio Batista (1940-1959) and Fidel Castro (1959-present). We will leave the reader to determine if the US performance in Cuba, its best performance in Latin America under the Roosevelt Corollary according to the Polity Index, aided in creating what Roosevelt called a “civilized society.”

We recognize that this exercise says little about the magnitude of the United State’s impact in the outcomes of these countries. Perhaps the countries listed in Table 1 would have achieved these Polity Scores absent US intervention. Or perhaps European countries would have intervened and generated a similar, if not worse, outcome. Nonetheless, considering US-led interventions in Latin America in this manner sheds some light on the general impact of these interventions.

The general pattern indicates that US intervention in Latin America did not produce widespread stability or improvement in the broader political institutions. Indeed, the United States needed to continually
intervene in Cuba and Nicaragua due to ongoing instability. The United States would also intervene again in Haiti in 1994-1996 due to continued political and social instability. This exercise also indicates that producing financial stability and peace for certain times and places may concomitantly generate public “bads” for other times and places. Again, the action of the Roosevelt period set a policy trajectory and set up mechanisms that locked-in that trajectory.

THE ROOSEVELT COROLLARY AS PRECEDENT FOR US IMPERIALISM

The Roosevelt Corollary has had a lasting impact on US foreign policy. In addition to serving as the justification for the interventions in Latin America discussed above, the Corollary also served as precedent for subsequent US interventions abroad (see Powell 2006, 76). As LaFeber notes, “It is the Roosevelt Doctrine, not Monroe’s, that Dulles, Acheson, Johnson, Reagan, and Weinberger had in mind when they justified unilateral US intervention in the internal affairs of Latin American States” (1986, 139-140). Summarizing the lasting impact of the Roosevelt Corollary, Serge Ricard contends that it influenced and guided “diplomacy throughout World War II and during the Cold War” (2006, 17).

The precedent set by the Roosevelt Corollary for US foreign military intervention extends beyond Latin America. For instance, one can see traces of Roosevelt’s rhetoric of using the US military to establish a “civilized society” in Latin America in Woodrow Wilson’s call, in 1917, to use the military to “make the world safe for democracy.”25 The Roosevelt Corollary can also be seen as setting the precedent for the more recent “Bush Doctrine,” in which US policy aims to “seek and support the growth of democratic movements and institutions in every nation and culture, with the ultimate goal of ending tyranny in our world.”26

Much has changed since Roosevelt first pronounced his corollary, but one thing that has remained constant is America’s willingness to utilize its military forces to intervene in foreign countries. That willingness

25 Wilson used this motivation in his request for a Declaration of War against Germany by the US Congress on April 2, 1917.
becomes evident when one considers the global reach of the US military. According to the Defense Department’s 2003 *Base Structure Report*, the United States has at least 702 foreign bases and installations. Further, it is estimated that these military bases and installations are located in at least fifty-nine countries and separate territories around the world (Editors 2002, 8-9). This list of countries, shown in Table 2, illustrates the global presence of the US military.

### Table 2:
**Countries and Separate Territories in which US Military Bases are Located** *(Includes US Possessions)*

| 1. Afghanistan | 22. Greenland | 42. Pakistan |
| 2. American Samoa | 23. Guam | 43. Peru |
| 3. Antigua | 24. Honduras | 44. Portugal |
| 4. Aruba | 25. Hong Kong | 45. Puerto Rico |
| 5. Australia | 26. Iceland | 46. Qatar |
| 6. Austria | 27. Indian Ocean (Diego Garcia) | 47. Saudi Arabia |
| 8. Bahrain | 29. Italy | 49. Spain |
| 11. Bulgaria | 32. Korea | 52. Turkey |
| 12. Canada | 33. Kosovo | 53. United Arab Republic (Egypt) |
| 13. Colombia | 34. Kuwait | 54. United Kingdom |
| 16. Denmark | 37. Luxembourg | 57. Venezuela |
| 17. Ecuador | 38. Netherlands | 58. Virgin Islands |
| 19. France | 40. Norway |  |
| 20. Germany | 41. Oman |  |

Once a base is established, a series of vested interests emerge which not only seek to maintain the status quo but to increase the size and scope of base operations. Even if we assume that the military bases were installed under the two key assumptions of benevolence and wisdom, it is easy to see

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27 Source to Table 2, Editors 2002, 8-9.
how a military installation can take on a life of its own leading to activities that differ greatly from the initial purpose or wisdom. Indeed, as will be discussed, the existence of bases abroad may very well generate significant negative unintended consequences (see Editors 2002).

In addition to military bases and installations, the United States also has a significant global deployment of military personnel. For instance, prior to the 9/11 attacks, Chalmers Johnson estimates that as of September 2001, the United States was deploying over 250,000 military personnel in over 150 countries. When Department of Defense civilians and US dependents are added to the number of military personnel, total US related deployment more than doubles to over 530,000 (Johnson 2004, 154-160). Since 9/11 these numbers have increased. For instance, in a Los Angeles Times report, William Arkin notes that since 9/11, “military tent cities have sprung up at 13 locations in nine countries neighboring Afghanistan, substantially extending the network of bases in the region. All together, from Bulgaria and Uzbekistan to Turkey, Kuwait and beyond, more than 60,000 US military personnel now live and work at these forward bases” (2002).

At first glance it may appear that these military bases, and the associated US military personnel, produce worldwide security and stability. Within this context, instead of policing the Western Hemisphere as dictated by the Roosevelt Corollary, the United States now can be seen as policing the world to establish “civilized societies.” However, as in Latin America, the United States’ global presence can produce both goods and bads.

In a recent Foreign Affairs article, Alexander Cooley (2006) analyzes the impact of the global US base strategy with particular emphasis on the impact of US bases in nondemocratic counties. Among his conclusions is that, “setting up bases in nondemocratic states brings mostly short-term benefits, rarely helps promote liberalization [in the country hosting the US base], and sometimes even endangers US security” (80). The underlying reason is that the leaders of nondemocratic countries entering into base agreements with the United States are fully aware that US policymakers need their support and cooperation for the success of the broader mission. Realizing this, these same leaders are aware that US officials are more likely to overlook illiberal activities for fear of damaging the military base agreement. In many cases it is not just a matter of looking the other way, but of the United States proactively supporting the existing regime.

In some cases, such as Saudi Arabia in the mid 1990s, the presence of US bases and military personnel provides the very fodder needed by extremists to coordinate others around their anti-US position. One can see
how this could ultimately harm the security of the United States both at home and abroad. In general, stationing troops abroad forces the United States to become involved in the politics of the host country, even if that is not the purpose of the military deployment (Cooley 2006). As many before us have noted, historically, this US involvement has done little to generate positive changes in the political and social institutions of the host country and in some cases have made things worse.

Yet another significant cost of the United States’ global broadcast of military power is the associated “blowback” (see Johnson 2004). Although blowback can take on many forms, a current concern is blowback in the form of terrorist attacks against the United States and US interests. Along these lines, the journalist William Arkin notes that while increased US military personnel and bases in the countries surrounding Afghanistan “make it easier for the United States to project its power, they may also increase prospects for renewed terrorist attacks on Americans” (2006). In further support of this point, Robert Pape (2005) identifies military occupation by foreign armies as a central motivation for suicide terrorism. Citizens in an occupied country have few substitutes for effectively voicing their objections to the alien occupation.

Consider also the work of Michael Scheuer, the former head of the CIA’s Bin Laden Unit. Scheuer (2003, 2005) has provided an extensive analysis of Osama Bin Laden, al Qaeda and the larger war on terror as presently undertaken by the United States. One of Scheuer’s central claims is that al Qaeda, and other terrorist organizations, are not motivated by a fundamental hatred for the American identity and way of life, but instead by US interventions and policies in the larger Middle East region. It is Scheuer’s contention that these interventions are in fact the driving force behind the backlash against the United States. In other words, these interventions in the Middle East have generated spillovers in the form of negative unintended consequences, such as the 9/11 attacks, that in turn led to further interventions, such as the overall war on terror and the invasion and reconstruction efforts in Afghanistan and Iraq.

Current efforts to produce “global public goods” by reconstructing Afghanistan and Iraq via military occupation will likewise generate significant blowback against the United States and other countries. In a January 2005 report, Mapping the Future, the National Intelligence Council noted that Iraq had become the new training ground for future terrorists.

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28 For a further discussion of how US policies in the Arab world are a driving factor behind anti-American sentiment, see Gause 2005, 71-74.
(previously, Afghanistan). Specifically, the report indicated that those currently engaged in the Iraq insurgency could eventually go home and take their training from the battlefields with them, resulting in an increase in conflict in other regions.

In oral comments during a briefing associated with the release of the report, David B. Low, the National Intelligence Officer for Transnational Threats, noted that “there is even, under the best scenario, over time, the likelihood that some of the jihadists who are not killed there [in Iraq] will, in a sense, go home, wherever home is, and will therefore disperse to various other countries” (quoted in Priest 2005, A01). Along similar lines, in a hearing in front of the Senate Intelligence Committee on February 16, 2005, then CIA Director Porter Goss noted that Iraq was being used to recruit “new anti-US jihadists,” and he went on to say that those “who survive will leave Iraq experienced and focused on acts of urban terrorism. They represent a potential pool of contacts to build transnational terrorist cells, groups, and networks.”

Finally, Peter Bergen and Alec Reynolds warn that “the current war in Iraq will generate a ferocious blowback. . . . Foreign volunteers fighting US troops in Iraq today will find new targets around the world after the war ends” (2005, 2).

In sum, even if one assumes that the United States is able to generate some semblance of stability in Afghanistan and Iraq, the associated blowback will most likely generate significant negative spillovers that will adversely impact countries around the world. Part of the context for this is the increasing ability of terrorist groups to inflict severe damage on imperial powers and the wider world economy, something that was not the case during the previous “era of terrorism” between roughly 1870 and 1914. Concerns on this score tend to focus on the possibility of such groups acquiring weapons of mass destruction such as so-called “suitcase nukes.” However, the risk of this is seriously exaggerated and policy makers should be more concerned about the damage such groups could cause using old fashioned (and much easier to acquire) high explosives via such acts as attacks on targets such as major refineries.

The question is how best to respond to this threat. The implicit solution of some is to rely upon a policy of imperialism aimed at diffusing democracy and liberal governance, since their absence is thought to be the principal cause of the threat. However, on the evidence, this effort has a low success rate and may well actually exacerbate the problem. We should

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29 Hearing before the Senate Intelligence Committee, 109th Congress, 1st Session, February 16, 2005.
in this as other areas look less to quick solutions involving the use of force and rely more on the slower but more certain effects of trade and commercial contacts. Just as government action produces often disappointing results when used to address domestic social problems as opposed to allowing economic processes to work their effects, so it often fails when applied at the international level or outside the boundaries of the state.

Efforts to produce “global public goods” may potentially create internal and external public bads. On the one hand foreign interventions can create public bads internal to the country being occupied. The examples of the Dominican Republic and Nicaragua highlight this possibility. Further, interventions may result in “neighborhood effects” which impact those that are external to the country being occupied by US military forces. To the extent that the current occupations of Afghanistan and Iraq produce the next generation of terrorists that attack targets in other countries, the US effort to provide global public goods will have in fact generated a global public bad.

Having identified some of the significant costs or “bads” produced by America’s global military presence, let us briefly review the US performance in generating “global public goods” in the form of stable political institutions. How has the US performed in major “nation building” efforts? This is an important question. If in fact the United States has performed well, it may provide sufficient justification for the use of military troops to occupy foreign countries despite the associated costs discussed above. Using the Polity IV Index, consider the outcome of the broader universe of US military occupations.\(^\text{30}\) The results are listed below in Table 3.

\(^{30}\) There is debate over what countries are in fact US-led nation building and reconstruction efforts. We have tried to consider as broad a list as possible. We have drawn the countries on our list from Lawson and Thacker (2003), Dobbins et al. (2003), Payne (2006), Pei and Kasper (2003) and Pei (2003). We recognize that there are many cases of US military interventions that are not included on this list.
Table 3: 2003 Polity IV Scores – Major US Military Occupations
20th and 21st Century

<table>
<thead>
<tr>
<th>Country</th>
<th>Occupation Period</th>
<th>Polity Score - Year Prior to Occupation</th>
<th>Polity Score ___ year(s) after end of occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>1898-1902</td>
<td>NA</td>
<td>3 3 3 3 3 3</td>
</tr>
<tr>
<td>Philippines</td>
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As a benchmark for success, let us use a score of +4. Recall that Iran received a score of +3 in 2003. By employing this benchmark we are asking, were US efforts to create ‘global public goods’ in the form of stable political institutions able to achieve an outcome slightly better than present day Iran?

In short, the historical record indicates that efforts to generate stable political institutions via US military occupation are more likely to fail than succeed. Of course we are fully cognizant of the issue of cause and effect. It may be the case that the countries listed are chaotic and instable and as such there should be no surprise that they remain in that state. Nonetheless this exercise indicates, at a minimum that the United States has not found anything like a reliable means for turning countries around.

Let us turn to the results based on the number of years since the US occupation:

**One year:** Of the twenty-six cases where at least one year has passed since the end of the US occupation, five achieved the relevant benchmark, a 19 percent success rate. (Grenada is not scored by the Polity Index, but we consider Grenada to be a case of success, as it has consistently been categorized as “Free” in the annual *Freedom in the World Report* (Freedom House 2005).)

**Five years:** Of the twenty-five cases where at least five years have passed, seven cases, or 28 percent, meet the benchmark of success.

**Ten years:** There are twenty-two cases of major military occupation that are scored by the Polity Index. However, we can reasonably intuit the success or failure of several countries that do not have a score (recall that the last Polity Score was assigned in 2003). We again consider Grenada a

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31 Freedom House is an independent non-governmental organization that focuses on understanding and analyzing worldwide trends of democracy and individual and political freedoms. The organization’s well-known *Freedom in the World* report is an annual comparative study of individual and political rights at the global level.
success. We consider Haiti and Somalia to be failures, as both are characterized by the absence of stable political institutions.\textsuperscript{32} When we include these three additional cases, there are twenty-five total. Seven meet the stated benchmark for a success rate of 28 percent.

**Fifteen years:** We consider Panama to be a case of success as stable political institutions continue to sustain. Including Panama, there are twenty-three total cases of military occupation. Nine, including Panama, achieved the relevant benchmark for a success rate of 39 percent.

**Twenty years:** Of the twenty-two efforts, we again count Grenada as a success but Lebanon as a failure since its Freedom House Score is “Not Free” (Freedom House 2005). As such, there are eight cases of success for a success rate of 36 percent.

As discussed previously, this exercise says little about the magnitude of the US impact on the outcomes of these countries. For instance, the Dominican Republic reached the relevant benchmark fifteen years after the exit of US occupiers. However, it is difficult to judge the influence of the US occupation, which took place fifteen years earlier, on this outcome. In other words, it is unclear what the magnitude of the US intervention actually was on the trajectory of this country. Similarly, Lebanon reached the benchmark fifteen years after the exit of US occupiers in 1958. However, the country’s political institutions unraveled only two years later and again fell below the stated benchmark.

There is also no control for the level of economic and political development and other factors that influence the success or failure of establishing sustainable political institutions. For instance, post-World War II Japan and West Germany were highly developed and industrialized compared to the countries where more recent efforts have taken place, such as Afghanistan, Bosnia, Somalia and Haiti. The differences in development influenced the nature and outcome of the occupations and reconstruction efforts. Moreover, both Germany and Japan had enjoyed representative government and the rule of law for a considerable period before succumbing to National Socialism and militaristic nationalism respectively so both cases involved the reconstruction of a political order rather than its

\textsuperscript{32} For instance, as of 2006, Haiti remains in a state of utter disarray. It is the poorest country in the Western hemisphere with approximately eighty percent of the population living in abject poverty. United Nations peacekeepers are a central means of security for the country. The presidential election in February 2006 was characterized by accusations of corruption, fraud and vote manipulation (CIA World Factbook 2006).
implantation *de novo*. In the case of the British Empire, the former colonies where such institutions have survived are mostly either colonies of settlement such as Canada and Australia or territories that were under direct British rule for a considerable period such as India and most of the West Indies. The record in places such as Africa is very poor as is that of areas that were part of the “informal British Empire,” such as Argentina.

There is no clear indication of what a “good” success rate might be, but the United States has achieved a 28 percent success rate for reconstructions that ended at least ten year ago, a 39 percent success rate for those that ended at least fifteen years ago and a 36 percent success rate for those that ended at least twenty years ago. The presumptive failures outnumber the successes, suggesting that “global public goods” in the form of stable political institutions cannot reliably be exported via military occupation. Admittedly, there are clear cases of success (i.e., Japan, West Germany, Austria) but there are *more* clear cases of failure.

**CONCLUSION**

While it is true that political, economic and social failures in other countries are indeed sometimes grave and tragic, the failures generated by US military interventions can be even greater. A complete economic analysis of empire must go beyond focusing on narrow signs of potential goods. A great power like the United States “does” foreign policy at an extensive scale. Single actions and particular consequences cannot be evaluated in isolation of concomitant actions and consequences. It is simplistic and utopian to imagine that an interventionist apparatus and polity can act only in the good cases and avoid the concomitant bads. The real choice might be between broad doctrines, e.g., that represented by George Washington, John Adams, and Grover Cleveland and that represented by Theodore Roosevelt.

Further, the economic analysis of empires must recognize the limitations of knowledge regarding institutional and social change, unintended consequences, externalities and “public bads.” It must appreciate the public choice issues such as the logic of special interests and bureaucracy.33

33 These issues are addressed in Coyne (2007).
Economists might look to Adam Smith (1776) for how to proceed in developing the “economics of empires”. In *The Wealth of Nations*, Smith provides an economic analysis of British colonization efforts. In considering the costs of maintaining the colonies relative to the benefits, Smith concluded that they were a net cost and that Britain should relinquish them (1776, 180). Smith was also keenly aware of the role that special-interests played in maintaining the colonies, which is why he realized that Britain would not relinquish them (1776, 129). In the case of imperialism and intervention we have an alliance of ruling groups, clients, and special interests as strong as that found in any other area of public policy. The usual outcome, as Smith argued, is policy that is a failure on its own terms and which imposes costs upon groups outside the magic circle greater than any putative benefits.

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Death and Taxes, Including Inflation: 
the Public versus Economists

JEFFREY ROGERS HUMMEL*

ABSTRACT

WHY IS THE DISTASTE FOR INFLATION SIGNIFICANTLY GREATER for the average layperson than for the average economist? In the latest edition of his intermediate text, Macroeconomics (2007b, 97-8), N. Gregory Mankiw puzzles over this conundrum. “If you ask the average person why inflation is a social problem, he will probably answer that inflation makes him poorer,” writes Mankiw. People believe that inflation hurts their real buying power. But “[t]his complaint about inflation is a common fallacy.” Inflation does have costs—Mankiw elaborates on shoe-leather costs, menu costs, and tax distortions, among others. But the magnitude of these costs, as measured by economists, is significantly smaller than the public seems to think. “Apparently, inflation worries the public much more than it does the economics profession,” but Mankiw remains perplexed as to exactly why.

The puzzle appears in earlier editions of Mankiw’s intermediate text and his best selling principles text (2007a, 676) as well. It also graces the texts of other authors. In Macroeconomics (5th ed.), Robert E. Hall and John B. Taylor (1997, 480) write that the “public’s negative view of inflation seems to come from sources other than these identifiable costs of inflation.” Perhaps “some people may be upset about inflation because they do not take the same broad view as an economist, who sees inflation as a general rise in all prices and dollar incomes.” Similarly, David Romer reports in his graduate text, Advanced Macroeconomics (2006, 547): “There is a

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I would like to thank Rodolfo Gonzalez and Warren Gibson for their comments.
wide gap between the popular view of inflation and the costs of inflation that economists can identify.”

Empirical verification of this difference of opinion can be found in an article by Robert J. Shiller (1997), “Why Do People Dislike Inflation?” Shiller extensively surveyed Americans, Germans, and Brazilians, discovering that they all hate inflation. Eighty-four percent of Americans either strongly or somewhat agree with the statement: “The control of inflation is one of the most important missions of U.S. economic policy.” Most of them believe that inflation erodes living standards. The economists Shiller surveyed, on the other hand, were far less concerned. Mankiw (1997) contributed a three-page comment on Shiller’s article to the same collection, in which he suggests that people may be associating inflation with negative supply shocks.

Yet one obvious aspect of this conundrum seems to have been entirely overlooked by mainstream macroeconomists. Mankiw unintentionally hints at it in his principles text when he discusses “The Inflation Tax,” just a few pages before getting into inflation’s costs. The costs that concern economists are inflation’s deadweight loss, its negative effect on net welfare. But that is only a part of the losses that concern the public. No one has problems understanding why people complain about the income tax, despite the fact that those complaints arise from more than just the tax’s deadweight loss. People cannot help also noticing the transfer of some of their income into the hands of government. The fact that the tax may pay for programs they favor is a separate issue.

Similarly, the general public is no doubt conscious of inflation’s implicit tax on their cash balances, the source of government seigniorage. The public’s belief that on average inflation reduces their real buying power is in fact technically right—despite the offsetting gain to government. Even if all prices rise in lock-step together, whatever money people hold declines in purchasing power. The longer they hold it or the more severe the inflation, the greater the decline. Moreover, unlike income and other taxes, which people in democratic countries may think they have some control over through voting, the seigniorage tax appears utterly beyond their control. This separates it further from any allegedly beneficial government programs that it may finance. In fact, people are often aware of their loss without realizing at all that government is gaining.

Admittedly the magnitude of the inflation tax is much lower than that of the income tax, at least in developed countries like the United States. Equaling total government seigniorage, it is best measured as the real additions to the stock of base money (i.e., high-powered or outside
money)—rather than the concomitant flow of annual interest that the government saves by issuing base money in lieu of debt—because people experience most of the transfer as a decline in the purchasing power of their existing cash balances. (That portion of base money growth that does not manifest itself in inflation still transfers resources from the public to the government, as will be elaborated on below). I estimate that during the high inflation of the 1970s in the U.S. seigniorage thus measured covered close to 2 percent of total federal outlays. This agrees with Haslag (1998, 19, n. 2), while Fischer (1982, 308) and Mankiw (2007a, 90) put the number at less than 3 percent of government receipts, which have consistently been below outlays. With government outlays hovering around 20 percent of GDP throughout the 1970s, we have an implicit tax that was not more than 0.4 percent of GDP.1 Today it is even lower at the low levels of inflation that the United States has experienced over the last few decades. Because so many dollars are now held abroad, what little seigniorage the United States extracts is partly imposed on foreigners. Which is why public complaints about inflation have been recently quite muted, if not nonexistent. But however low the seigniorage tax, it still necessarily adds a burden felt by taxpayers on top of the deadweight loss.

Moreover, given that the poor hold a higher proportion of their wealth in the form of cash balances than do the rich, the incidence of this implicit tax is regressive. It may even encompass individuals that the federal government does not otherwise tax. Finally, we should add that the period when U.S. inflation hit double digits, the 1970s, was before financial deregulation became comprehensive. With checking accounts unable to legally pay any interest and savings accounts facing interest rate ceilings that were not fully phased out until 1986, the erosion of cash balances tended to be extended from the monetary base to the broader monetary aggregates, M1 and M2, increasing the loss imposed on money holders. To be sure, some of that additional loss was a gain to commercial banks that was eventually competed away through non-price competition and financial innovation. NOW accounts, with interest-bearing checking, were first issued by Massachusetts and New Hampshire mutual savings banks in 1972, and later money market mutual funds blind-sided the depositories.

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1 Fischer (1982, 308) estimates 0.5 percent of U.S. GDP for 1973-78. For comparison, see Fischer’s seigniorage estimates for other countries, as well as those of Haslag (1998), whose sample of sixty-seven countries over the years 1965 to 1994 finds that seigniorage averaged about 2.0 percent of total output, ranging between as low as 0.25 percent to as high as 9.98 percent (for Ghana). See also Click (1998).
But here again, those who could most readily escape the loss of purchasing power were the most financially savvy, that is, the wealthy.

Inflation broke 10 percent at only two points during the 1970s, both times assisted by supply shocks. Mankiw’s suggestion that the public failed to differentiate the two effects has much merit. Therefore, let us explore what would have been the seigniorage take from a steady-state, double-digit inflation fueled exclusively by monetary expansion. By the end of the decade, the ratio of the monetary base to GDP had sunk below 6 percent. Assuming a constant real growth rate of 3 percent and no further changes in base velocity, the base would have had to grow by 13 percent annually to sustain 10 percent inflation. Seigniorage under those circumstances would have been almost twice as great, consistently taking nearly 0.8 percent of GDP.

A simplified diagram as adapted by Lawrence H. White (1999, 147-8) from Martin J. Bailey’s classic analysis of seigniorage (1956) provides insight into this tax and is shown in Figure 1. Since only increases in base money generate seigniorage, assume for a moment that the money multiplier remains constant. In that case, changes in the base are proportional to changes in the total money stock, and the real demand for base money is proportional to the real demand for the total money stock. Further assume no changes in output, and no changes in income velocity other than those brought about by changes in expected inflation, or what is equivalent, that output and velocity rise at the same rate except when inflationary expectations change. Finally, consider a steady state where expected inflation equals actual inflation. Let $B$ represent the stock of base money and $P$ the price level, so that real seigniorage for any given period equals $(\Delta B)/P$.

Under those assumptions, the rate of expected inflation will equal the rate of base money growth, and the real demand for base money, $(B/P)^0$, is a decreasing function of that growth, as depicted in Figure 1. (Any point along this curve represents a constant ratio of income velocity to output, although moving from one point to another involves a once-and-for all change in velocity relative to output.) Notice the similarity with the standard analysis of transfers and deadweight loss from explicit taxes. At any given positive rate of base money growth, you will have a rectangle

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2The figures I always use for the monetary base are unadjusted for changes in reserve requirements. I have found that the more widely reported base figures adjusted for changes in reserve requirements are seriously misleading in this and many other contexts. For instance, for 1980 the unadjusted monetary base was $158.6 billion while the adjusted monetary base was only $142.0 billion.
representing the seigniorage transfer from the public to the government, $(\Delta B/B)/(B/P) = (\Delta B)/P$, and a triangle representing the deadweight loss.

Figure 1:
Seigniorage and Deadweight Loss from Fully Anticipated Inflation
This welfare loss results from inflation inducing people to hold less base money. It includes so-called “shoe-leather costs,” a term that trivializes and misleads about the resulting increased transaction costs. But the triangle does not necessarily include other costs of inflation, such as tax or relative-price distortions. Nor does it include inflation’s now well-established negative impact on growth. The triangle also ignores any distorting impact of other monetary interventions, among them deposit insurance and reserve requirements. Reserve requirements shift the demand curve for base money outward, at least at low levels of inflation.\textsuperscript{3} Deposit insurance presumably makes the inside money created by banks more attractive than currency and therefore has the opposite impact, unless that is offset by a simultaneous public shift out of less liquid financial instruments to inside money, with banks increasing their reserves in response. I know of no study that takes into account the welfare implications of these distortions of base money demand.

Notice that the diagram can even illustrate unanticipated inflation. If expected inflation is zero, for instance, the holding of base money will be a vertical ray where the demand curve crosses the horizontal axis, as in Figure 2. At the same rate of base money expansion as in Figure 1, seigniorage is greater but deadweight loss is less (in this case zero). The full loss to money holders is now approximately double the steady-state deadweight loss plus the steady-state seigniorage. The case where expected inflation is greater than zero but less than actual inflation could also be represented; it is a case with some welfare loss, while at the same time total losses to the general public rest somewhere between those for fully anticipated inflation and those for completely unanticipated inflation.

Complicating the diagram to make it more realistic unfortunately poses certain problems that have been exposed in an important but neglected Milton Friedman article (1971). Most attempts to estimate inflation’s welfare loss replace monetary growth on the vertical axis with the nominal interest rate, which incorporates anticipated inflation. This change ostensibly permits analysis when the growth of real output is positive. Yet this version of the graph obscures exactly where a constant monetary base and therefore zero seigniorage lie. Early studies measured deadweight loss from the horizontal line representing price stability, with the real and nominal rates of interest equivalent. But this will only correspond to

\textsuperscript{3}See White (1999, 150-3) for the impact of reserve requirements on base money demand, and particularly, why at significantly high rates of inflation reserve requirements actually \textit{decrease} that demand.
freezing the monetary base when velocity and output rise at the same rate. As Friedman has pointed out, growth of population or per capita output increase the demand for base money, *ceteris paribus*, making it possible for the government to extract seigniorage from the issue of new money even without any inflation. (Growth simultaneously causes the diagram’s demand curve to shift outward, but that can easily be accommodated by changing the horizontal axis to measuring base money demand as a percent of nominal GDP.)

**Figure 2: Seigniorage from Completely Unanticipated Inflation**

![Diagram showing seigniorage from completely unanticipated inflation.](image-url)
Other studies put the baseline for determining deadweight loss at the famous Friedman (1969) optimum where deflation makes the return on base money equal the risk-free real rate of interest. Whatever else can be said for Friedman’s optimum—and there is an extensive literature on the subject\(^4\)—it is not necessarily the appropriate standard for isolating the deadweight loss from seigniorage alone. It will be so only if the rate of economic growth exceeds the growth of base velocity by exactly the real rate of interest. At any lower growth rate, Friedman’s optimum can only be realized if government generates negative seigniorage (either in the form of interest on base money or a monetary contraction), which in turn must be financed by other taxes with their own deadweight loss. Friedman’s optimum then becomes essentially a world where the government is partly paying back the public for past seigniorage. Nonetheless, real growth for the U.S. from 1960 on has generally exceeded by a few percentage points growth in base money velocity, despite the fact that any rise in the money multiplier shows up as a rise in base velocity. Thus, the Friedman optimum remains a better baseline for measuring seigniorage’s deadweight loss than does zero inflation.

Actual estimates of the welfare loss from a 10 percent inflation in the United States necessarily depend upon specifying the demand function for money. Stanley Fischer (1981) estimated 0.3 percent of GDP. Robert Lucas (1981) came up with 0.45 percent of GDP, but his higher estimate was based on the demand for M1 rather than for the monetary base, because he wanted to capture the deadweight loss from interest-rate restrictions. Kevin Dowd (1994) arrived at a much lower figure for M1: only 0.12 percent of GDP. Thomas F. Cooley and Gary D. Hanson (1989) used a different method to reach similarly low results. Rather than allowing the demand for money to vary, they calibrated a real business cycle model, allowing output to vary while constraining velocity. With 10 percent inflation, holding base velocity constant caused GDP to fall by 0.112 percent, while holding M1 velocity constant caused GDP to fall by 0.387 percent.

All the studies mentioned so far used zero inflation as their baseline and are consequently biased downward. Martin Feldstein (1997), in contrast, bases his estimates on the Friedman optimum. He calculated the annual welfare gain to base money demand if inflation was reduced from only 2 percent to 0 percent at 0.02 percent of GDP. Using his method and parameters, I determined that the welfare loss from a 10 percent inflation was 0.73 percent of GDP. But Bennett T. McCallum’s graduate textbook

\(^4\)See Phelps (1973) and Casey and Sala-i-Martin (1997) for highlights.
EFFREY ROGERS HUMMEL

(1989, 124-8) employed the demand for M1 to estimate a welfare loss of only 0.28 percent of GDP even with Friedman’s lower baseline. Max Gillman (1995), a proponent of the Friedman baseline, compared these and myriad other studies, some of which employed the partial equilibrium approach illustrated in Figure 1 and others of which employed an approach similar to Cooley and Hanson with a general equilibrium model. Gillman reports that their estimates of the annual welfare loss from a 10 percent inflation vary all the way from 0.11 to 7.15 percent of real GDP. But after compensating for failure to use the Friedman baseline as well as other factors, he concludes that the reasonable range is between 0.85 and 3.0 percent of GDP. Even the low end of Gillman’s reasonable range for deadweight loss exceeds the potential seigniorage from a sustained 10 percent inflation, 0.80 percent of GDP, suggesting that seigniorage quickly degenerates into a very inefficient tax.

Yet for explaining public fears about inflation, perhaps we should conservatively confine ourselves not to the potential losses from a 10 percent inflation but to the actual losses suffered in the U.S. during the 1970s. Recall that we only know for certain that government’s seigniorage gain was approximately 0.4 percent of GDP. If people had been expecting zero inflation throughout the decade, then that percentage represents the entire loss to the general public. The inflation of the 1970s, however, was at least somewhat anticipated. We therefore must add some welfare loss to the seigniorage, possibly doubling the result to 0.8 percent of GDP. Still a small number, it could hardly be the only thing that makes people dislike inflation. Other factors that economists have speculated about could be at work, such as greater uncertainty (including uncertainty about the magnitude of the levy on cash balances), the unanticipated transfers between members of the general public, the difficulty of distinguishing relative price changes from inflation, and perhaps some money illusion. But that hardly justifies economists ignoring or being indifferent to dollars that inflation takes from the public and gives to the government.

So long as we are considering unanticipated inflation, we should also briefly mention other ways that inflation contributes to government revenue. There are two. First, unanticipated inflation benefits net debtors at the expense of net creditors, and government is the economy’s largest debtor. Second, inflation enhances explicit taxes either through bracket creep or through taxes on saving. Here again, as in the work of Fischer,
Lucas, and Feldstein cited above, economists have focused mainly on the resulting welfare losses rather than the transfers. Although bracket creep was eliminated from the income tax, it was a major factor during the 1970s (and is today enjoying a minor resurrection with the alternative minimum tax). Yet we can ignore the impact of inflation on explicit taxes under the plausible assumption that it directly feeds public dissatisfaction with those taxes rather than with inflation.

On the other hand, investors in Treasury securities undoubtedly attributed their below expected and even negative real returns during the 1970s to inflation. (Any offsetting gain through reduction of future real taxes required to finance government debt, even in the unlikely event that it was correctly and fully anticipated, was surely not credited to inflation.) And like seigniorage, this expropriation appears more arbitrary than normal taxes. My admittedly crude estimate of this transfer’s magnitude during that decade, based on comparing the nominal change in the debt with the real change, is 5.0 percent of federal expenditures or 1.0 percent of GDP. This is an upper-bound estimate of the additional interest government would have had to pay on Treasury securities if investors had correctly anticipated inflation. I was unable to fully adjust for inflationary expectations raising nominal interest rates, although I have eliminated the component of the deficit financed through seigniorage. If the inflation of the 1970s had been perfectly anticipated, there obviously would have been no transfer whatsoever.\(^6\)

At first glance, this loss, however high, may appear to be concentrated on the wealthy. But commercial banks held about 25 percent of Treasuries at the beginning of the 1970s, and member banks have always been \textit{indirectly} required to do so, at capped returns, through their shares in the Federal Reserve. To that extent, government partially recaptured whatever real gains accrued to banks from issuing interest-restricted M1 and M2 liabilities. In any case, when added to our seigniorage estimates above, we now have the actual inflation of the 1970s costing the general public potentially as much as 1.8 percent of GDP, much of it ending up in government coffers. As a percentage of consumption, that amounts to around 3.0 percent.

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\(^6\)The work of Robert Eisner—notably \textit{(1989; 1986);} and Eisner and Pieper \textit{(1984)—has done the most to call attention and even celebrate this effect of inflation. But he is unconcerned with the unanticipated transfer and, like me, has no estimates of how much of the real reduction of government debt was offset by higher Treasury interest payments.}
Why the apparent failure of economists to consider the tax transfers resulting from inflation? Partially I suspect a holdover from the days when Keynesians still believed that there was a long-run trade off between inflation and unemployment. They therefore tended to minimize inflation’s costs. This was exemplified as recently as 1987 in Alan Blinder’s popular book, *Hard Heads, Soft Hearts: Tough-Minded Economics for a Just Society* (1987, 51). “I am forced to conclude,” he wrote, “that inflations’ most devout enemies exhibit verbal hysteria.” The losses from inflation “appear to be quite modest—more like a bad cold than a cancer. . . . As rational individuals, we do not volunteer for a lobotomy to cure a head cold. Yet, as a collectivity, we routinely prescribe the economic equivalent of a lobotomy (high unemployment) as a cure for the inflationary cold.”

Today, as Feldstein (1997, 123) points out, “[t]here is now widespread agreement in the economics profession that ‘high’ rates of inflation have significant adverse consequences and that these adverse effects justify the [temporary] sacrifices in employment and output that are generally needed to reduce inflation.” But he hastily adds that “[t]here is . . . much less professional support for the goal of ‘price stability’. ” Most macroeconomists now favor a low but still positive rate of inflation. Partly this reflects fears of unanticipated deflationary shocks. But primarily—as attested by the Taylor Rule, essentially a nominal GDP target—macroeconomists still believe that central banks have some role to play in dampening fluctuations in output and unemployment. And central banks can play that role more safely if the trend rate of inflation gives them room for tightening money growth without inducing any price declines.

Even the public finance literature, which quite openly recognizes seigniorage as a tax, reinforces the tendency among economists to ignore the loss to the public. Having become obsessed with determining the least inefficient mix of seigniorage and other taxes, much of this literature verges toward viewing seigniorage as a *net* benefit, because it allegedly reduces distortions from other taxes. Inflation, claims McCallum (1989, 129), just to cite one instance, “provides a benefit in the form of reduced tax collection.” Although the assumption that government expenditures remain fixed may be the proper approach for some economic questions, it clearly does not illuminate public objections to taxation.

In the final analysis, the public may indeed overestimate the costs of inflation, even after counting their losses through seigniorage and other transfers to government. Yet macroeconomists are guilty of

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Phelps (1973) initiated this perspective.
underestimating the public’s losses by forgetting this usually small but still arbitrary and unpredictable implicit tax.

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Textbooks and Pure Fiscal Policy: The Neglect of Monetary Basics

LEE C. SPECTOR AND T. NORMAN VAN COTT

ABSTRACT

AGGREGATE DEMAND CANNOT CHANGE WITHOUT THE CONCOMITANT support of the monetary sector. At the initial level of output, either the money supply must change, the demand for money change, or the quantity of money demanded change. The link between money demand and money velocity means that changes in the demand for money and quantity of money demanded correspond to exogenous and endogenous changes in the velocity of money at the initial level of output. In any event, absent the support of the monetary sector, aggregate demand does not change. End of story. ¹

One would hope that macroeconomic discussions of fiscal policy would utilize such monetary basics. Unfortunately, most leading textbooks in macro and monetary economics do not elucidate the monetary mechanisms crucial to understanding the effects of fiscal policy. Indeed, one must go back at least thirty years to find textbook discussions that do

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¹ At the initial level of output, endogenous changes in the quantity of money demanded or velocity can occur as a result of a change in the interest rate. Moreover, endogenous and exogenous changes in velocity at the initial level of output are probably better thought of as changes in the “desired” velocity since they stem from changes in people’s willingness to hold money.
right by monetary basics. (Similar difficulties plague the discussion of pure fiscal actions, particularly “crowding out,” in the journal literature.)

IGNORING MONETARY BASICS

A typical policy scenario in these textbooks has the government debt-financing an increase in its government spending, leaving the money supply unchanged. An unchanged money supply classifies the fiscal action as “pure.” Given that the IS-LM diagrammatics have no shift in the LM schedule occurring, exogenous changes in the demand for money (that is, exogenous changes in the velocity of money) are precluded. Any increase in aggregate demand at the initial level of output must trace to a decrease in the quantity of money demanded (or endogenous rise in the velocity of money).

Authors’ equation-skipping sketches of the response to this fiscal action consistently fail to note any monetary basis for the increase in aggregate demand. The common practice is simply to assert that aggregate demand and output increase. Consider the macro textbook by Robert Hall and D.H. Papell (2005). Their cryptic explanation of the initial response to this government action is typical: “What goes on in the economy when the government purchases more goods? First, the increase in government demand increases GDP through the multiplier” (207). No monetary basis for the increase in aggregate demand is noted.

Another author, Richard Froyen (2005), makes the omission of the monetary sector explicit. After noting that additional government spending raises aggregate demand, Froyen observes: “At a given level of income, equilibrium in the money market, and therefore in the bond market, is undisturbed by the government spending change” (165).

Do these authors omit events in the monetary sector completely? No, but the sector only impinges on the process after aggregate demand and output have already increased. Hall & Papell, for example, continue their explanation: “But the increase in GDP will increase the demand for money: More money is needed for transactions purposes. Since the Fed does not change the money supply, we know that interest rates must rise to offset the increase in money demand that came from the increase in GDP. This

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2 Hall co-authored the textbook’s first five editions (starting in 1986) with John B. Taylor. The following quotes are essentially the same in all six editions.
increase in the interest rate reduces investment demand and net exports, offsetting some of the stimulus to GDP caused by government spending” (207-208).

Taken at face value, these authors would have us believe the impossible. Namely, the monetary sector’s only role in an expansionary pure fiscal action is that of curtailing the increase in aggregate demand and output, an increase whose genesis is independent of the monetary sector. What about that bedrock proposition about all increases in aggregate demand being traceable to concomitant support of the monetary sector? Students and their professors simply never read about it.

The failure is not confined to a few macro/monetary textbooks, but is actually rather common. For other examples where the monetary basics underlying fiscal actions are dealt with incorrectly, see Dornbusch, Fisher, and Startz (2004, 279-280), Gordon (2006, 108-110), and Mankiw (2007, 304-306). Still others make no attempt at all, rightly or wrongly, at introducing monetary adjustments into the discussion—see Abel and Bernanke (2005) and De Long (2002).

The story is the same for tax changes unaccompanied by changes in the money supply or demand for money. Consider Olivier Blanchard’s (2003) explanation of the response to an increase in taxes.

The increase in taxes leads to lower disposable income, which causes people to decrease their consumption. The result through the multiplier effect is a decrease in output and income. The decrease in income reduces the demand for money, leading to a decrease in the interest rate. The decline in the interest rate reduces but does not completely offset the effect of higher taxes on the demand for goods. (99)

There is no mention of the fact that a decrease in aggregate demand occurs only if the tax increase induces an increase in the quantity of money demanded (that is, fall in velocity) at the initial level of output. Instead, Blanchard has events in the monetary sector moderating a decrease in aggregate demand, a decrease that begins independent of the monetary sector.

Perhaps these skewed presentations of the monetary sector are innocent oversights. Or maybe these authors think that expository parsimony trumps a proper accounting of the monetary sector. But the partiality is so misleading and needless that one may wonder about their
understanding of monetary basics. Whatever the reason, the omission makes for bad economics, bad pedagogy, and bad research.  

**INCLUDING MONETARY BASICS**

One must go back upwards of thirty years to find textbook descriptions of pure fiscal actions consistent with monetary basics. Milton Friedman and Walter Heller's (1969) famous exchange over the efficacy of monetary and fiscal policy was a widely adopted course reading in the 1970's, and in that sense can be regarded a "textbook." Friedman's analysis of a tax increase is instructive. Noting that a tax increase necessarily means the government will be borrowing less or retiring more debt, Friedman observed:

> If there is going to be any net effect [on aggregate demand], it has to be on a more sophisticated level; it has to be the indirect effect of the reduction in interest rates on other variables. In particular, it has to be a willingness on the part of the populace to hold more money, more nominal money, when the interest rate goes down. (54)

Note that contrary to Blanchard, Friedman's analysis is consistent with monetary basics. Rather than having monetary sector events soften a reduction in aggregate demand that is independent of the monetary sector, Friedman recognized that unless the tax increase generates an excess demand for money at the initial level of output, there can be no reduction in aggregate demand. For Friedman, monetary sector events exert a proactive, contractionary influence on the economy rather than the passive,

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3 Ben Bolch (1998) once asked whether macroeconomics is “believable.” If the field's textbook authors stray from first principles of their discipline, the answer to Bolch's query must be “no.”

4 Close to thirty years ago, Michael Bordo and Anna Schwartz (1979) pointed out that in the 1940's, Clark Warburton understood, within a Keynesian context, the essential role monetary basics play in describing the mechanism by which fiscal actions bring about demand-based changes in aggregate output. Bordo and Schwartz labeled Warburton a “pioneer monetarist.”
contractionary-offsetting role current textbooks ascribe to monetary sector events.

Contemporary with Friedman, Axel Leijonhufvud (1968) pointed out that for an exogenous decrease in the consumption function: “A proper analysis would recognize that while income is declining, there is an excess demand for money, corresponding to the excess supply of commodities… The decline in income will be halted when the excess demand for money and the excess supply of commodities simultaneously reach zero” (30).

Several textbooks during this time got their monetary basics right. Both Michael Darby (1976) and Boris Pesek and Thomas Saving (1968) offered sketches of debt-financed increases in government spending consistent with bedrock monetary principles. Pesek & Saving, assuming the government debt-finances additional spending from an initial position of a balanced budget, observed:

Now we have two borrowers competing for saving: the government and the investors. Before either can spend the money it borrows, it must borrow it. Something has to give and what will give is the rate of interest [at the initial level of output]… As the rate of interest increases, at least some people will want to economize on their money assets… As a result, part of the increase in government borrowing will be financed out of decreased money holdings so that the rate of interest will not rise so much that the decrease in consumption and investment [due to the government’s bond sale] will equal the increase in government expenditures. Thus, the net effect will be an increase in aggregate demand. (336)

Note that for Pesek & Saving the increase in aggregate demand for goods and services mirrors a decrease in the quantity of money demanded. The same is true for Darby. To wit,

This increase in government spending requires a reallocation of resources from the production of goods and services for the private sector—especially investment—to production for the government. The reduction of private investment is achieved… by a rise in the interest rate as the increased government borrowing drives down the price of bonds… These higher interest
rates may, however, decrease the demand for money, thus creating excess cash balances and an increase in aggregate demand. (180-181)

For both Pesek & Saving and Darby, the fiscal action increases aggregate demand only because it elicits an excess supply of money at the initial level of output. Analogous to Friedman’s discussion of a tax increase, Pesek & Saving and Darby have events in the monetary sector exerting a proactive, expansionary influence on the process. Contemporary authors reverse the portrayal—namely, monetary sector events have a passive, expansionary-offsetting influence. Pesek & Saving and Darby are consistent with monetary basics; their contemporary counterparts are not.

Armen Alchian and William Allen’s (1972a) celebrated textbook, *University Economics*, offered an analysis of an increase in aggregate demand that paralleled Friedman, Darby, and Pesek & Saving’s attention to monetary sector basics. Alchian and Allen focused on an increase in private investment, but their attention to monetary basics was similar to that of Friedman, Pesek & Saving, and Darby. Regarding the increase in private investment, Alchian and Allen noted: “To say…that the investment function has increased so that more investment goods are demanded is to say (assuming a balance of the consumption goods’ demand and supply) that the public demands less money, so that with the given initial stock of money, the amount supplied is excessive” (577). In their instructor’s manual, Alchian and Allen (1972b) then apologized for a lack of candor in presenting monetary sector basics, saying: “Perhaps we were not wise to have been so meek in omitting the full exposition from the text. But it is too much of an innovation to put into a textbook when the standard acceptable exposition seems so deeply ingrained” (120-121).

Today the situation is worse. We have not made an exhaustive investigation, but it is our impression that monetary-sector basics are ill-treated or neglected in pretty much all the textbooks today, not just most, as...

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5 Incidentally, here is Warburton’s (1945) analysis of fiscal policy: “In fact, if fiscal policy has no effect on the volume of money or its rate of use in the purchase of products of the economy, the production policy expressed in the objects of government expenditures is a substitution of goods and services ordered by government for goods and services which would be ordered by individuals…the net effect of fiscal policy upon the total volume of economic activity or production is due solely to its monetary aspect” (p. 75, emphases added).
was the case when Friedman, Pesek & Saving, Darby, Leijonhufvud, and Alchian and Allen were writing.⁶

OTHER CONSIDERATIONS

Some might be tempted to offer the following excuse: The authors who neglect monetary basics all use the IS-LM framework, a simultaneous-equations system that does not admit to sequential description. In other words, the textbook authors have made the best of a difficult situation. However tempting such an apology might be, it must be pointed out that the macroeconomic explanations provided by Friedman, Pesek & Saving, and Darby all fit into an IS-LM setting. If they could do right by monetary basics, why can't Hall & Papell, Froyen, Blanchard, and the others?

Consider, for example, Pesek & Saving's account. They argue that, following a debt-financed increase in government expenditures, aggregate demand increases to the extent that the private sector finances purchases of the government's new debt by reducing money holdings as opposed to reducing its consumption and investment. The incentive for either means of financing the debt purchases is the increase in the interest rate that follows upon the government's sale of new debt. The degree to which the private sector economizes on money vs. reduces consumption and investment turns on the relative interest sensitivities of the demand for money and private expenditures. The increase in aggregate demand in the Pesek & Saving description will be larger as the interest sensitivity of the demand for money increases relative to the interest sensitivity of private expenditures.

The latter interest relationships determine, in part, the relative slopes of the IS and LM curves. It follows that Pesek & Saving's monetary-based explanation of the increase in aggregate demand adapts easily to IS-LM underpinnings. The same factors that lead to a larger increase in aggregate demand in their explanation make the LM schedule flatter relative to the IS

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⁶ Roberts and Van Cott (1978; 1979) pointed out the minority status of Friedman, Pesek & Saving, and Darby. In terms of influencing the inclusion of monetary basics in analysis of pure fiscal policy, Roberts and Van Cott's articles met the same fate as these authors.
schedule, meaning the fiscal action is more effective in increasing equilibrium output.

Of course, current authors come to the same conclusion about the relative interest sensitivities, the slopes of the IS and LM curves, and policy effectiveness. Does this mean the foregoing is much ado about nothing? Not at all! Whatever the effectiveness of the pure fiscal action in increasing output, Hall & Papell, Froyen, Blanchard, and the others have the monetary sector choking off a rise in aggregate demand that it does nothing to facilitate, while Pesek & Saving et. al. have the monetary sector being the source of the rise in aggregate demand. One cannot have it both ways. The contradiction is real. And it cannot be dismissed as an inescapable consequence of the IS-LM framework being a simultaneous equation system.7

SOURCE OF THE CONTRADICTION

We submit that the contradiction traces to an important omission in the offending authors’ equation-skipping sketch. Consider the debt-financed increase in government expenditures. Unlike Darby and Pesek & Saving, the offending authors fail to ask how the government gets the money it spends. Never mind that the fiscal action is debt-financed. The government must convert its bonds into money (via sale to a financially constrained private sector in this case) if it is to augment its purchasing power in the market for goods and services.

The overlooking of the bonds-into-money step in the adjustment process is what leads current authors to an account where everything occurs subsequent to the increase in aggregate demand. Where does the government get the money it spends? The offending authors never say. Does the government’s attempt to augment its purchasing power have inter-market consequences? Reading the offending authors, one might conclude “no,” because they never ask how/where the government gets the money in the first place. It is Pesek & Saving and Darby’s careful attention to this step in the fiscal process that leads them to a portrayal consistent with monetary basics.

7 Lest there be any doubt, Pesek & Saving cast their discussion in terms of an IS-LM diagram.
Some might argue that the government need not sell its bonds until it takes delivery on the goods and services. Thus, output can increase before the government’s bond sale. However, the production of goods for the government must still be financed—in this case producers tap the credit market to finance production of the goods. Reshuffling who first taps the credit market does not negate the requirements that monetary basics imposes on the description.

CROWDING OUT

Properly accounting for the monetary sector’s role in pure fiscal actions has important implications for the analysis of crowding out. Textbooks explain crowding out as the result of increases in aggregate demand and output, which puts upward pressure on the interest rate. The higher interest rate crowds out private spending. Thus, events in the monetary sector are seen as the proximate cause of crowding out.

Pesek & Saving and Darby reverse the story. Crowding out is a consequence of the government’s bond sale (not the increase in output), as the higher interest rate due to the bond sale causes a decline in interest-sensitive private expenditures. Any increase in aggregate demand mirrors the interest rate induced fall in the quantity of money demanded (or endogenous increase in velocity of money). Rather than acting as a drag on the expansion, as textbooks authors suggest, events in the monetary sector are the source of whatever increase in aggregate demand occurs. Indeed, crowding out would be complete were there not some interest sensitivity to the demand for money.

FINAL COMMENT

Milton Friedman’s (1968) much-cited presidential address to the American Economic Association cautioned economists not to expect too much from monetary policy. The pendulum had swung too far back from early Keynesian thinking that had, in Friedman’s words, “twice damned” monetary policy (2). Damned because it was incapable of reducing the
interest rate, and damned because even if rate reductions were possible, it
would not matter because private investment and consumption
expenditures are little affected by interest rates.

Our message here is that many textbook authors’ negation of the
monetary sector’s proactive role in pure fiscal actions is a subtle, and
perhaps unwitting, continuation of this “twice damned” tradition. Because
the negation consists merely of incomplete sketches of transitions between
equilibrium positions, it is less susceptible to empirical refutations like those
Friedman and others brought to early Keynesian thinking. Modern
textbook authors seem to have dodged intellectual accountability.
Nevertheless, the time is long, long past that monetary basics should be
explicitly incorporated into discussions of pure fiscal actions.

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Handling Economic Freedom in Growth Regressions: Suggestions for Clarification

JULIO H. COLE* AND ROBERT A. LAWSON**


In a major survey article on the measurement and applications of economic freedom indicators (de Haan, Lundström, and Sturm 2006), the authors criticized, among other things, the tendency in many applied studies to use both the level and the change in the EF index as regressors in cross-country growth-regressions, advocating instead a specification in which only the change in the EF index is included. In their view, “studies that jointly employ the level and the change of EF as regressors are suspect” (177).1

In his comment, Lawson argues that using the level of the EF index (in addition to the change) should not be ruled out a priori, but should be decided empirically. He also makes a theoretical case for including both the level and the change in EF in an initial equation specification. The purpose of this note is to help clarify some of the issues involved in this discussion.

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1 Full disclosure: Both authors have published papers that de Haan et al. criticize in this regard.
THE SPECIFICATION ISSUE

Consider the following specifications:

\begin{align*}
(1) & \quad GROWTH = a_0 + a_1EF_0 + a_2\Delta EF + a_3Z \\
(2) & \quad GROWTH = b_0 + b_1EF_0 + b_2EF_1 + b_3Z \\
(3) & \quad GROWTH = c_0 + c_1EF_1 + c_2Z \\
(4) & \quad GROWTH = d_0 + d_1\Delta EF + d_2Z \\
\end{align*}

where $GROWTH$ is the rate of economic growth over some period, $EF_0$ is the economic freedom index at the beginning of the period, $EF_1$ is the economic freedom index at the end of the period, $Z$ is a matrix of control variables (i.e., other variables affecting $GROWTH$ over the period), and $\Delta EF = EF_1 - EF_0$ by definition. Equation (1) is Lawson’s preferred specification, while de Haan et al. favor Equation (4).

The theoretical case for Equation (1) is straightforward: If $EF$ matters at all for economic growth, then we would expect that, other things equal (i.e., holding $\Delta EF$ and the $Z$ variables constant), countries with higher initial levels of $EF$ should grow faster than countries with lower initial levels. This would show up as a positive and significant estimate for $a_1$ in Equation (1). On the other hand, two countries might have the same initial values for $EF$ (and similar values for the $Z$ variables), except that in one country $EF$ is increasing over the sample period ($\Delta EF > 0$) while in the other it is decreasing ($\Delta EF < 0$). In that case, and if $EF$ indeed matters for growth, then we would expect the former country to have better economic performance than the latter. This would show up as a positive and significant estimate for $a_2$ in Equation (1).

Both Lawson and de Haan et al. agree that $a_2 > 0$. The difference is in the treatment of $a_1$. Lawson favors including $EF_0$ in the regression (and predicts that $a_1 > 0$), while de Haan et al. insist on excluding $EF_0$ (thereby implicitly assuming that $a_1 = 0$).

Given that $\Delta EF = EF_1 - EF_0$, Equation (2) is formally identical to Equation (1), with $b_1 = a_1 - a_2$ and $b_2 = a_2$. There is no difference between

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2 It is not entirely clear that de Haan et al. actually believe that initial $EF$ has no growth-impact whatsoever, or whether their favored approached is premised exclusively on grounds of econometric methodology.
estimating (1) or (2). Estimated coefficients for the two regressions will satisfy these relationships, while the constant and the coefficients for the other regressors will be identical in both regressions, as well as the $R^2$ and other regression statistics. The only difference is in the standard error for $b_1$, the coefficient for $EF_0$ in Equation (2), which is of course related to the results for Equation (1) by

$$\text{Var}(b_1) = \text{Var}(a_1 - a_2) = \text{Var}(a_1) + \text{Var}(a_2) - 2\text{Cov}(a_1, a_2)$$

where $\text{Var}(b_1)$ is the sample variance for $b_1$, $\text{Var}(a_1)$ and $\text{Var}(a_2)$ are the sample variances for $a_1$ and $a_2$ from Equation (1), and $\text{Cov}(a_1, a_2)$ is the covariance between $a_1$ and $a_2$. From a strictly econometric point of view there is nothing to choose between these two regressions, because they are the same regression.

There seems to be some confusion about this point when Lawson (2006) writes:

I agree that Equation (2) is still a problematic specification because the level of $EF$ at the beginning of the period is likely to be highly collinear with the level of $EF$ at the end of the period. This high degree of collinearity between $EF_0$ and $EF_1$ will make the coefficient estimates in Equation (2) difficult to interpret and will bias the standard errors. (403)

Equation (2) might indeed be more difficult to interpret, but only because it is a somewhat unorthodox way to express Equation (1), and not because of collinearity or any other statistical problems present in (2) but not in (1).\(^3\) If classical OLS assumptions are satisfied in one equation, they will also be satisfied in the other, and both equations will yield unbiased estimates of their respective coefficients.\(^4\)

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\(^3\) Lawson agrees entirely with this. The primary point was that Equation (2) is simply difficult to interpret economically relative to Equation (1).

\(^4\) If $a_1$ and $a_2$ are about the same order of magnitude, then $b_1$ in Equation (2) might be small (or even negative). At first glance, one might think that this is due to the fact that $EF_1 = EF_0 + \Delta EF$, and therefore $EF_0$ does not add any additional information to the regression. This is not, however, a matter of statistics, but of simple numerics. The results for $EF_0$ in Equation (2) depend upon the sign of the coefficient for $\Delta EF$ in Equation (1). If, in some other context, $\Delta EF$ happened to have a negative coefficient in a regression similar in form to Equation (1), then $EF_0$ would have a “large” coefficient in the equivalent Equation (2) form. In any case, the fact that $EF_0$ has a small (or negative) coefficient in Equation (2) does not
The fact that (1) and (2) are formally identical seems to be the essence of the de Haan-Sturm case against including the level of \( EF \) in a growth-regression. Their argument is, in effect, a two-step one: First discredit (2), and then discredit (1) by implication.

The problem, in their view, is that (2) includes \( EF_1 \), the value of \( EF \) at the end of the sample period. To understand why they think this is a problem, first consider Equation (3), in which \( GROWTH \) depends upon end-period \( EF \) but not upon initial \( EF \). For some reason, there seems to be unanimous agreement that (3) is an inadmissible specification. Lawson states:

Clearly, [Equation (3)] is inappropriate as it is logically impossible for the level of economic freedom at the end of the period to affect economic growth in the previous period. Something occurring today cannot determine what happened yesterday. (402)

And de Haan and Sturm concur:

We all agree that [Equation (3)] does not make theoretical sense: the level of economic freedom at the end of the sample period cannot explain economic growth experienced over the sample. (409)

Hence, they conclude, “if [Equation (3)] is to be considered nonsensical, then . . . Lawson’s proposed equation is as well, and for the same reason” (410). That is, if (3) makes no sense, then (2) makes no sense either, since it also includes \( EF_1 \) as a regressor, and therefore we should reject (1) as well, since it is formally identical to (2). That leaves us with Equation (4), which includes only \( \Delta EF \).

But is it really true that (3) is “logically impossible” and “does not make theoretical sense”? After all, \( EF_1 \) is simply \( EF_0 + \Delta EF \), so (3) equals

\[
GROWTH = c_0 + c_1 EF_0 + c_1 \Delta EF + c_2 Z
\]

imply that this variable has a small (or negative) effect on \( GROWTH \), since the full effect of cross-country differences in \( EF_0 \) equals \( b_1 + b_2 \) (\( = a_1 \) in Equation (1)).
and is therefore simply a restricted version of Equation (1) with $a_1 = a_2$. Thus, (3) simply states that a one-unit cross-country difference in initial $EF$ and a one-unit cross-country difference in $\Delta EF$ have the same effect on $GROWTH$. Now, this restriction seems arbitrary, and might well be an invalid assumption, but that does not make it somehow “nonsensical,” and in any case it is something that should be decided empirically, not on theoretical grounds.\footnote{Lawson now concedes that the problem isn’t the logical invalidity of (3) but rather its statistical invalidity in that the implied restriction cannot be supported with standard statistical testing.}

Nor is the de Haan-Sturm “solution” any better, since Equation (4) can be expressed as

$$GROWTH = d_0 - d_1 EF_0 + d_1 EF_1 + d_2 Z$$

which, as Lawson rightly notes (404), is simply a restricted version of Equation (2) with $b_1 = -b_2$. Thus, if de Haan and Sturm reject Equation (2)—and by implication, Equation (1)—because it includes $EF_1$ as a regressor, then they should reject their own preferred equation as well, since it includes $EF_1$ too.

The point is that the proper specification for a growth regression that includes economic freedom should be driven first by theory, and any restrictions placed on the regression should be subject to empirical testing. We still maintain that the de Haan-Sturm specification implies a restriction that cannot be justified statistically and that the omission of the level of $EF$ represents a potentially serious omitted variable problem.

THE ENDOGENEITY ISSUE

To be fair, we are perhaps talking at cross-purposes here. Lawson’s primary issue in his comment was about the proper specification of the growth regression. De Haan and Sturm in contrast make much of reverse-causation and endogeneity—issues that affect all cross-country growth regressions of the sort de Haan, Lundström and Sturm (2006) surveyed. The problem is that a strong empirical correlation between, say, $GROWTH$
and $\Delta EF$, does not necessarily imply that the direction of causality is $\Delta EF \rightarrow GROWTH$, since it could be the other way around (reverse- causality), or both $\Delta EF$ and $GROWTH$ could be responding to some other factor (endogeneity).

What we fail to see is why this should be less of a problem in Equation (4) than in the other three specifications since $\Delta EF$ (and implicitly $EF_0$ and $EF_1$) is in Equation (4) as well. If there is a reverse-causality problem in Equation (1) or (2), then it is likely still to be present in Equation (4). Dropping a single variable, $EF_0$, is not likely to eliminate magically any reverse-causality or endogeneity problems associated with $\Delta EF$ and $GROWTH$.

If reverse-causality and/or endogeneity are the real bone of contention, then we see three solutions, each with problems of their own. (1) We could discard $\Delta EF$ altogether and estimate a model containing only the initial-period $EF$; after all, nobody is suggesting that economic growth over the sample period somehow “determines” initial $EF$. The problem here, however, is that if Equation (1) is really the true model, as Lawson suggests, then discarding $\Delta EF$ will create an omitted variable problem, biasing the estimated coefficient for $EF_0$. (2) We could use the level of $EF$ and the $\Delta EF$ from a period before the growth period under investigation to test for reverse causality (see Gwartney et al., 2006). This approach faces data limitations and still fails to account for possible endogeneity. (3) We could dispense with single-equation estimation altogether and move to an instrumental variables (IV) approach. While this method may deal with the problem, IV models themselves invite a whole host of criticisms regarding what the proper instruments should be, and the results are especially fragile to the choice of instruments.

Endogeneity and reverse-causation are, to be sure, important and thorny issues, but they are present in practically any kind of econometric analysis, especially in these reduced-form cross-country growth regressions. Indeed, that “correlation does not imply causation” is something that statisticians and econometricians have known for ages and not something that we all suddenly realized after we learned how to say “endogeneity.” This just means that regression models only provide measures of the degree of statistical association between variables, and that inferences regarding causality require an interpretation of the results in terms of prior theory. Econometric technique per se will often provide little guidance in this respect, especially in the kind of cross-section studies we are concerned with here.
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Handling Economic Freedom in Growth Regressions: A Reply to Cole and Lawson

JAKOB DE HAAN* AND JAN-EGBERT STURM**

COLE AND LAWSON (2007) STATE THAT “EQUATION (1) IS LAWSON’S PREFERRED SPECIFICATION, WHILE DE HAAN ET AL. FAVOR EQUATION (4).” THAT IS NOT AN APPROPRIATE SUMMARY OF OUR POSITION, HOWEVER. WE DO NOT HAVE A PREFERENCE FOR EQUATION (4). IN OUR PAPERS ON THE RELATIONSHIP BETWEEN ECONOMIC FREEDOM AND ECONOMIC PERFORMANCE WE HAVE ALWAYS ESTIMATED EQUATIONS (3) AND (4), USING THE EXTREME BOUNDS ANALYSIS TO TEST WHETHER (THE LEVEL OR THE CHANGE IN) THE FRASER INDEX IS ROBUSTLY RELATED TO ECONOMIC GROWTH. OUR RESULTS ARE THAT THE LEVEL OF ECONOMIC FREEDOM IS NOT ROBUSTLY RELATED TO GROWTH, IN CONTRAST TO THE CHANGE OF THE ECONOMIC FREEDOM. IN OUR REPLY (DE HAAN AND STURM 2006) TO LAWSON (2006), WE EXPLAIN THAT THE MAIN REASON THAT WE DO NOT CONSIDER EQUATION (1) A PROPER SPECIFICATION IS THAT EQUATION (1) IS EQUIVALENT TO EQUATION (2). ALL SIDES IN THE DEBATE SEEM TO AGREE THAT EQUATION (2) IS DEFINITELY NOT A GOOD MODEL AS THERE IS A SERIOUS PROBLEM OF ENDOGENEITY OF ONE OF THE RIGHT-HAND SIDE VARIABLES (I.E. EF1).

However, Equation (4) potentially also suffers from reverse causality, as we acknowledged in all our previous work (see, for instance, De Haan and Sturm 2000). That is why in previous work we have used a test suggested by Maddala. This test involves running regressions for the change in economic freedom indicators using, as regressors, all the determinants of

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GDP growth plus other variables that are relevant in explaining our economic freedom indicators. Next, the predicted values for the change in economic freedom indicators are added to the regression. If its coefficient is insignificant, the endogeneity hypothesis is rejected. The results of this test suggest that the causality runs from the change in economic freedom to economic growth.

As we show in our survey with Susanne Lundstrom (De Haan et al. 2006), there is, however, some evidence suggesting a two-way causality. The evidence, however, is mainly based on Granger-causality tests. Those tests are, in our view, not suited to test for causality in the present case due to the (in)frequency of the data (one observation for every 5 years).

We agree with Cole and Lawson that an instrumental variable approach (IV) could be an alternative to deal with the potential endogeneity of $\Delta EF$. Elsewhere (De Haan and Sturm 2003) we have examined what variables may explain the change in economic freedom between 1975 and 1995. Here we follow up on this analysis to compare the outcomes of OLS and IV estimates, employing the data used in our previous work. In the first round the following variables are used as explanatory variables for the change in economic freedom:

- the level of economic freedom in 1975
- (the log of) per capita income in 1975
- gross investment as share of GDP over 1975-90
- percentage of the population with higher school attained in 1975
- percentage of the population with secondary school attained in 1975
- population growth over 1975-90
- average political rights and civil liberties over 1975-90
- fraction of time the country was involved in a war
- government consumption as share of GDP over 1975-90.

Table 1 shows the OLS (column 1) and IV (column 2) results. It is clear that the change in economic freedom is highly significant in both regressions. We therefore conclude that taking the endogeneity of the change in economic freedom into account does not alter our result found in all our previous work, i.e. the change in economic freedom is related to economic growth.
Table 1. A simple cross-country growth model: OLS vs. IV  
(dependent variable: average GDP growth 1975-90)

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>(1) OLS</th>
<th>(2) IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>8.45 (2.75)</td>
<td>8.82 (3.08)</td>
</tr>
<tr>
<td>GDP in 1975</td>
<td>-1.46 (-3.19)</td>
<td>-1.53 (-3.59)</td>
</tr>
<tr>
<td>Investment</td>
<td>0.24 (4.90)</td>
<td>0.25 (5.25)</td>
</tr>
<tr>
<td>Secondary school enrollment</td>
<td>0.02 (1.04)</td>
<td>0.02 (0.89)</td>
</tr>
<tr>
<td>Change in economic freedom</td>
<td>0.69 (2.65)</td>
<td>0.98 (2.50)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>80</td>
<td>78</td>
</tr>
</tbody>
</table>

T-statistics in parentheses.

REFERENCES


Do Economists Reach a Conclusion on Household and Municipal Recycling?

MATTHEW GUNTER*

Abstract

HOUSEHOLD RECYCLING CURRENTLY ENJOYS BROAD SUPPORT from the American public. Bailey (1995) reports that American households rate trash as the biggest environmental problem facing America with three-fourths identifying recycling as its solution. A more recent poll in 2004 by the Center for the American Dream found that 87 percent of respondents somewhat or strongly agreed: “We should be more focused on recycling, conserving energy and water and buying goods that are not over packaged in order to protect the environment” (21). Ninety-two percent of respondents in the same poll believe that recycling more bottles, cans and paper will help the environment.1 Perhaps in response to this demand, the number of municipal recycling programs increases every year. In 2001 the Environmental Protection Agency calculated that 30 percent of American’s solid waste was diverted from its landfills and recycled. As of 2002, the EPA reports that there are nearly 9,000 municipal recycling programs in the United States, which serve about half the citizenry.

When it comes to a specific public policy, expert economists and the public often arrive at different conclusions. So what do published economists conclude about household recycling?

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1 Entire poll is available online: Link.
CRITERIA FOR INCLUSION

There are two specific criteria that a paper must meet for inclusion in my survey: It must reach a policy conclusion on household or municipal recycling, and at least one of the authors (if the paper has multiple authors) must be a credentialed economist. The first limitation excludes a large literature on industrial ecology and industrial waste recycling. These topics are outside the scope of my present analysis and are omitted from this paper.2

My second limitation further narrows the number of possible papers to those authored by at least one economist. For the purposes of this paper I define an economist as a person with at least one of the following two characteristics: Possession of an advanced degree in economics (either an MA or Ph.D.), or employment (past or present) in an economics department at a college or university. Since I am specifically looking at the policy conclusions of economists, papers published by credentialed economists that do not make a discernable policy conclusion are omitted. Admittedly, this involves some judgment on my part.

I cannot make the claim that all economists with published policy judgments on recycling are included in this paper. I do make the claim, however, that the following judgments represent the whole range of economic opinion on the matter. The papers and books I include in this survey were found using the EconLit database, the Google search engine, and the George Mason University library catalogue. I found several additional papers after examining the references of papers originally found using EconLit, Google, and the GMU catalogue. I did not make contact with any of the economists in this paper regarding their policy judgments. I base my conclusions only on my interpretation of the judgments they express in their published work. Several papers treated here are quite old and it is quite plausible that some economists, if asked, might endorse different policy recommendations today. If an economist has changed his mind on a policy proposal espoused in an earlier work, but has not expressed this change in any published work, it will not be reflected in my analysis.

2 A good general reference guide to industrial ecology from an economics perspective is van den Bergh and Janssen (2004). Also, see Baumgartner et al. (2001) for a recent overview of industrial waste recycling and the concept of joint production. Two older treatments of industrial waste recycling and joint production are Etheridge (1973) and Kurz (1986). I thank an anonymous referee for directing me to all four sources.
ECONOMISTS’ POLICY JUDGMENTS

According to the famous free-market economist Julian Simon, “There are three ways society can organize waste disposal: (a) commanding, (b) guiding by tax and subsidy, and (c) leaving it to the individual and the market” (1996, 300). Economists’ policy judgments are organized below according to Simon’s typology. A number of them did not fit comfortably into any of these three categories and are placed in a fourth category. Also, note that my “unit of analysis” is the published work, not the author; for this reason an author may turn up in more than one category.

I. Command and Control Policies

Economists in the “command and control” category favor extensive government intervention in the market, usually in the form of mandatory regulations.

Frank Ackerman:

Ackerman (1997) rejects mainstream economic cost-benefit analysis as the primary tool for analyzing recycling programs. He suggests that markets cannot put an accurate price on the value that people receive from their participation in recycling and other environmental activities:

One could sensibly claim that environmental goals embody essential, perhaps “ethereal,” human experiences, which, like consensual sex, are corrupted by being bought and sold—or that environmental standards embody basic social norms which, like electoral participation, are undermined by being bought and sold. In either case, we as citizens have to decide on the limits within which we allow ourselves, as consumers, to buy and sell. The environmental objectives we pursue through recycling lie, in large part, outside those limits. (57)

Ackerman rejects both a free market and guided-market approach to recycling. He describes faith in the free market as a “system of secular belief” and dismisses those who advocate a laissez-faire policy in recycling:

85 VOLUME 4, NUMBER 1, JANUARY 2007
The “anti-recyclers,” as they have been called, look at recycling from a purely economic point of view. They claim that the government should not set recycling targets or subsidize local recycling programs. Just get the prices right, allow unfettered competition, and the market will achieve the most efficient level of recycling, as with everything else. (11)

In his discussion of market-based incentives he concludes, “none of the market incentives for recycling here—unit pricing for waste disposal, elimination of virgin material subsidies, or advance disposal fees—accomplish much on their own” (42). Ackerman’s overall assessment of recycling is that it’s “almost always environmentally desirable, which is why it is worth doing even if it entails moderate cost increases” (83).

Allen Hershkowitz:

In a report for the Natural Resources Defense Council, Hershkowitz (1997) responds to a “small but potentially influential group of antirecycling voices attempting to disrupt environmental progress” (Introduction). His primary target is a 1996 article by John Tierney in *New York Times Magazine* entitled “Recycling is Garbage.” Hershkowitz examines and rejects the anti-recycling arguments of Tierney and other recycling critics. According to Hershkowitz, “few public policies provide as many advantages as does recycling” (Introduction). He argues:

- Using recycled paper, plastics and metals is better for the environment than using virgin resources (Chapter 1).
- Recycling reduces the need for waste storage in toxic landfills and reduces the air pollution from burning wastes in incinerators (Chapter 2).
- Recycling does “lose money,” but notes “most government programs ‘lose money’ -- not only traditional garbage-collection programs, public schools, and police and fire departments, but also NASA, the military, and highway construction, to name just a few.” He continues: “Compared with traditional garbage collection, expenditures on recycling efforts are invariably smaller and offer the
potential to generate their own revenue stream, even if they do not always break even” (Chapter 3).

- The billions in subsidies that benefit virgin resources extraction pale in comparison to the meager subsidies that that recycling efforts receive, with the result that there is too much virgin resource extraction and not enough recycling (Chapter 3).

- Unit pricing of garbage only works when mandatory curbside recycling is in place. “With few exceptions, wherever you find pay-as-you-throw, you also find curbside collection and separation requirements” (Chapter 3).

- Manufactures of consumer products should be held responsible for the cost of disposing of the products they make (Chapter 3).

- Deposit-refund regulations on glass bottles are an effective way to reduce litter (Chapter 3).

In discussing future policy Hershkowitz notes that many European countries recycle a higher percentage of their garbage than does the United States, and concludes that “clearly we could do better” (Chapter 4). Hershkowitz views state and local recycling programs as a positive development, noting “municipal officials from virtually every region in the United States were among the most vociferous proponents of recycling requirements” (Chapter 4, emphasis in original). In ending his report, Hershkowitz concludes: “[A]ll sectors of the polity would do well, materially and spiritually, to embrace and help advance the sustainable, community-building, natural harmony it [recycling] promotes” (Conclusion).

Anni Huhtala:

Using data collected from Helsinki Finland as inputs, Huhtala (1997) develops a model of waste disposal that includes the costs of recycling, the social costs associated with landfills, and the environmental preferences of consumers. She uses data collected from Helsinki, Finland as inputs into the model. She recommends a command and control mandate for achieving a certain percentage of municipal recycling:

The analysis shows that when the social (environmental) costs of landfilling are taken into account, it becomes a
more costly disposal option than others. The results of the study suggest that mandates for achieving 50% recycling in municipalities are not too far-fetched and are both economically and environmentally justified. (312)

Jeffrey Morris:

Morris (1996) discusses the competition in many localities between recycling and incineration as alternate means of waste disposal. He advocates government intervention in the recycling market to ensure that recycling can fairly compete with government supported virgin materials extraction.

Governmental and institutionalized supports for virgin materials extraction and processing result in virgin materials being sold to manufacturers at prices lower than would prevail in the absence of these supports. At the same time, recycled materials in general cannot be sold for more than the virgin materials with which they compete. Therefore, there is, and will continue to be, a need for governmental support for collection, processing and marketing of recyclable and compostable materials to ensure that recycling can compete on an equal and fair basis with garbage collection and disposal and the concomitant continued acquisition of virgin materials. (IV. Competition for Government Support)

Examples of government support for virgin material extraction that Morris cites include “land and mining grants, oil depletion allowances, and subsidized access to resources on publicly-owned lands” (IV. Competition for Government Support). In addition to virgin materials extraction, Morris also notes unfair government support for virgin materials manufacturing, citing “virgin-content requirements in governmental purchasing specifications” as one such example (IV. Competition for Government Support).

Morris does not advocate eliminating virgin material supports, but wants to counter their effects with recycling subsidies. Perhaps he views new recycling subsidies as relatively easier to implement than the elimination of entrenched government support for virgin materials extraction and manufacturing.
Kazuhiro Nishimura

Nishimura (2001) offers a theoretical analysis of decentralized recycling systems. He suggests that “a decentralized and competitive economic system that includes recycling could be inefficient when the waste quality affects the strategic environment of the recycling agent” (206). Nishimura concludes that a “central planning authority that has complete access to private industry information” would be “difficult in practice” (207). Instead, he proposes that goods manufacturers be required to recycle because “the [negative] externalities could be internalized without further economic coordination, and it may also stabilize the system” (207-208).

II. Guided-market: Guiding by Tax and Subsidy

Economists in this category generally do not favor command and control policies. They advocate a guided-market approach wherein government intervenes to provide the right incentives to correct what are commonly called market failures—instances where the private market, if left to its own devices, will produce unsatisfactory results.

Paul Calcott and Margaret Walls:

Because most households are not paid for their recyclables, producers do not receive adequate signals to make their products more recyclable. Calcott and Walls (2000) conclude that waste-output taxes and recycling subsidies are not feasible because of high transactions and information costs. They advocate a “second-best” solution:

This constrained optimal threshold balances the increase in production costs incurred when product recyclability is increased with the savings in recycling costs... In particular, a deposit-refund continues to be the instrument of choice, as it is in a first-best setting. Here, we show that with two different rates for the deposit, one that applies to recyclable products and one that applies to nonrecyclable products, the [modified] deposit-refund will yield the constrained optimum. (15)
After allowing for some imperfections in the recycling market (transactions costs and the imperfect sorting of materials) Calcott and Walls (2005) once again favor a deposit-refund scheme to arrive at a constrained optimum. They argue the refund encourages consumers to bring in products for recycling, mitigating the negative effects of the two market imperfections noted above. According to Calcott and Walls, producers should bear the social costs of non-recycled products that end up in the trash and should not get to retain unclaimed deposits, which would go to the state (290, 300-301). Regarding household waste disposal, they recommend a small disposal fee that is “set equal to the social costs of disposal less the difference between recycling costs (at the threshold) and the virgin materials cost (302).” They note that a small disposal fee will encourage “low-cost waste-reduction activities by households” while avoiding strong incentives for illegal dumping (302).

Don Fullerton and Thomas C. Kinnaman:

Fullerton and Kinnaman (1995) develop a model of waste disposal that allows for illicit burning or dumping in addition to the legal disposal options of recycling or garbage collection. They find that a price per unit of garbage is likely to lead to inefficient amounts of burning or dumping, and recommend subsidizing garbage collection. (By “subsidizing” they mean simply not charging a fee for collection.) “The optimal fee structure,” according to Fullerton and Kinnaman, “is a deposit-refund system: a tax on all output plus a rebate on proper disposal either through recycling or garbage collection” (78).

Don Fullerton and Wenbo Wu:

Fullerton and Wu (1998) develop a general equilibrium model to analyze disposal content fees, subsidies for recycling design, unit pricing of household waste, deposit refund systems, and product “take back” requirements on manufacturers (131). Their model allows for various market failures including private collection firms that price waste to reflect private and not social costs; the aesthetic and health costs of landfills, incinerators, and trash collection trucks; and municipalities that charge a zero price for trash collection in order to avoid illegal dumping and administrative costs (resulting in excessive trash generation by residents).

Different policy options for different market failures, note Fullerton and Wu, can be used to reach the social optimum. If disposal
charges are aimed at consumers, “then consumers will induce firms to use less packaging and to design products for easier subsequent recycling” (146). If disposal charges are not feasible, then policies directed at the firm can produce the social optimum. In this scenario, they conclude: “the solution might involve either a subsidy to recycling . . . or if that is not possible, a subsidy to recyclability (146).

Ralph Gray:

Using three different examples, Gray (1972) makes the case for a deposit-refund system aimed at internalizing disposal costs of wastes. Gray recommends a deposit on cans and bottles “large enough to force consumers to get them into a reuse or reclamation channel” (48). He calculates that this deposit would need to be ten or eleven cents (about thirty-six cents in 2006 dollars).

In dealing with the problem of abandoned junk automobiles, Gray recommends:

charging each buyer of a new car a deposit based on weight and current and projected price of scrap metal. The charge should be high enough that it would pay to have the vehicle hauled into a scrap yard even if the price of scrap were negative. (49)

If the costs of growing, manufacturing and disposing of paper is greater than the cost of recycling paper, Gray recommends that society encourage recycling through the use of a tax on newspapers. In the scheme he envisions:

The householder can save his paper, periodically turn it into a vendor to receive a price per pound (which may be positive or negative), plus a refund of his deposit. Newsprint dealers can then sell their acquisitions to paper reclaimers, receive payments for the refunds they have made, and in turn the reclamer would receive rebates from a federal trust fund. (50)

Gray specifically eschews the use of subsidies and regulation in regard to waste disposal. From an equity viewpoint, he believes that
subsidies are no different than “paying Willie Sutton a bounty not to rob banks.” He notes:

From the standpoint of allocative efficiency, a subsidy would replace the costs of disposal pollution borne by citizens and taxpayers with the costs of recycling to be borne by taxpayers rather than the consumers whose consumption makes necessary recycling activity. (51)

Gray views a regulatory approach to waste disposal as both more costly than a deposit refund system and a roadblock toward the discovery of more efficient recycling processes (51).

**Thomas C. Kinnaman**

In a concise yet comprehensive article Kinnaman (2006) summarizes the economic literature on recycling and waste management. Kinnaman argues that state mandates for recycling and garbage disposal should be replaced by a landfill tax. By setting the landfill tax equal to the external marginal cost of waste disposal, municipalities will adopt recycling programs only when it is efficient to do so (230-231). Kinnaman concludes that if the cost of garbage disposal were internalized, state mandated recycling goals could be eliminated.

If the external costs of garbage disposal were to be internalized through the landfill tax, state mandates that require municipalities to adopt curbside recycling, to achieve a recycling target, or to implement unit-based fees for garbage pick-up would be unnecessary and could be eliminated. (231)

**Marie Lynn Miranda, Jess W. Everett, Daniel Blume, Barbeau A. Roy, Jr.**

Using data gathered from mail and telephone surveys in 21 cities, Miranda, et al. (1994) investigate the effects of unit based pricing of solid waste and recycling programs on the costs to municipalities of providing solid waste removal services. Though they stress that their results “are at best preliminary” (697), they find strong evidence that unit based pricing and recycling can lower costs and improve efficiency (681). Like other
economists who stress a guided-market approach to recycling policy, they find “[u]nit pricing may provide a financial incentive that is more cost effective in eliciting particular behaviors than command-and-control type government directives” (692). Unsurprisingly, they do not recommend mandatory recycling.

**Glenn E. Morris and Duncan Holthausen, Jr.:**

Morris and Holthausen (1994) develop a utility-maximizing model of managing household waste. Using a two-period model, they find that moving from a scenario with a fixed waste disposal fee, with no curbside recycling, and twice-a-week collection to a scenario with a unit price per pound of waste and a curbside recycling program can provide a significant utility increase for a typical household (228-233). As long as the new program is not significantly more costly than the old, the new program with a unit price and curbside recycling is welfare enhancing.

**Talbot Page:**

Page (1977) says that recycling in and of itself is not important, but that government policy (taxes, subsidies, regulations, etc.) should guide the economy toward economic efficiency (where price equals marginal cost). According to Page:

There are four causes of market inefficiencies that are important for our purposes and that manifest themselves in imbalance between prices and marginal costs. These are (1) monopoly pricing power; (2) the market system’s inability to include environmental and disposal costs in product prices; (3) distortions in the federal tax system; and (4) price systems, such as freight pricing, which discriminate among products on the basis of what the traffic will bear. (5)

Page does not see (1) monopoly pricing power in virgin materials extraction as a major concern for policymakers (5-6). Page notes that negative externalities of pollution including solid waste disposal, item (2), are not accounted for in a product’s price, and concludes that society needs either effluent taxes or regulations to ensure that costs are internalized (p. 6). The efficiency criterion says that tax distortions, item (3), should be
minimal to ensure that a tax is as neutral as possible. “The simplest way to
guarantee nonneutrality,” according to Page, “is to tax one sector of the
economy lightly and another sector heavily” (7). Page notes that many
economists think that material extraction is taxed too lightly relative to
other sectors, “leading to too much extraction, too much material and
energy throughput, too much solid waste, and not enough recycling” (7).
Page observes that scrap materials sometimes pay a higher rate than virgin
materials for freight transportation, item (4), despite little or no cost
differences. According to Page, “[i]f the efficiency criterion were applied,
rates would be based on marginal costs, resulting in a more balanced flow
of virgin and scrap materials” (7). For Page, “the focus [of policy] is on
making the market work better. As the market becomes a better allocator of
material uses, recycling, durability, and conservation will take care of
themselves” (210).

Karen Palmer, Hilary Sigman, and Margaret Walls:

Palmer, Sigman, and Walls (1997) examine three popular market
incentive policies for recycling and waste disposal and find, with relevant
qualifications, that a deposit/refund system is best:

In this study, we analyze the costs of three economic
incentive policies for reducing disposal of municipal solid
waste: deposit/refunds, recycling subsidies, and advance
disposal fees [ADF]. We find that a deposit/refund is
significantly less costly than either a recycling subsidy or an
ADF. However, high administrative costs might alter this
conclusion, making an ADF appear more attractive. (147)

Karen Palmer and Margaret Walls:

Palmer and Walls (1997) develop a model of consumer and producer
behavior to examine whether mandatory recycled content standards found
in a large number of states are more efficient than a deposit-refund system.
They find that the mandatory content standards must be combined with
other taxes on production inputs and outputs to achieve an efficient
outcome, but that the information required to implement the efficient tax is
too great in a real-life scenario. Therefore, they recommend a deposit-
refund approach. They conclude: An “optimal deposit-refund consists of a
tax on production combined with a subsidy of recycled products both of which are equal to the marginal social cost of disposal” (204).

Palmer and Walls (1999) discuss which set of policies best conform to the principles of the Extended Producer Responsibility movement. According to Palmer and Walls, “Extended Product Responsibility embodies the notion that individuals along a product chain should share responsibility for the life-cycle environmental impacts of the product—i.e., the impacts from raw material extraction through manufacturing, distribution, consumption and ultimate waste disposal” (4). Extended Producer Responsibility is a slightly narrower concept that says producers should bear some portion of the responsibility and cost for discarded consumer products. Ultimately, Palmer and Walls find a tax and subsidy approach works best.

We conclude that a UCTS [upstream combination tax/subsidy] policy coupled with increasing use of UBP [unit-based pricing] could lead to cost-effective reductions in waste disposal in the US and promote the goals of Extended Product Responsibility in a cost-effective manner. (9)

Further clarification is probably warranted on what exactly an upstream combination tax and subsidy (UCTS) and unit-based pricing (UBP) involve. An upstream combination tax/subsidy “combines a tax on produced intermediate goods such as aluminum ingot, rolls of a specific grade of paper, and sheets of steel, with a subsidy granted to collectors of recyclables such as used beverage cans, old newspapers, and so forth, who subsequently sell the goods for reprocessing” (3). A unit-based pricing program, advocated by several other economists treated in this paper, charges households a charge per bag or pound of trash instead of a flat fee. Through price incentives, a unit-based pricing program is thought to reduce the amount of trash households throw away while encouraging both recycling and more environmentally designed products that require less packaging.

Palmer and Walls (2002) reiterate their earlier conclusions for an incentive-based approach to recycling policy instead of reliance on either the voluntary decisions of private industry or “command and control” regulations. As in their previous paper, they favor an incentive-based approach, which “allow[s] firms and consumers the flexibility of not ‘complying’—that is, not changing their behavior in response to the policy
instrument (be it an emissions tax, disposal fee, UCTS, or tradable recycling credit scheme)” (41). And unlike voluntary recycling programs, they point out firms would pay a penalty for non-compliance. Palmer and Walls (2002) stress the need for “flexibility across firms,” which is why they suggest a tradable credit approach similar to the tradable emissions program that is popular among economists as an efficient way of reducing air pollution (41).

Karen Pittel, Jean-Pierre Amigues, and Thomas Kuhn:

Using an endogenous growth type model Pittel, Amigues and Kuhn (2005) examine whether a decentralized free market in recycling and virgin resource extraction reaches a socially optimum long-run path. They find that “[t]he deviation of the decentralized solution from the social optimum is due to a number of market failures” (3). One market failure is the absence of a market for unrecycled waste in laissez-faire environment. The other major market failure they identify is “virgin resource extractors and recycling firms [that] do not account for the effects of their output decision on the future availability of recycled waste.” To correct these market failures Pittel, Amigues, and Kuhn recommend two government interventions: creation of a market for unrecycled waste, and subsidizing recycling and resource extraction (25).

Richard C. Porter:

A significant portion of Porter’s book *The Economics of Waste* is devoted to recycling. After a discussion of the costs and benefits associated with recycling, Porter concludes: “recycling probably does not now pay off in social benefit-cost sense for the average municipality in the United States” (2002, 139). Porter recommends a decentralized approach that calls for each municipality to conduct a cost-benefit analysis before choosing what materials, and how much of each material, to recycle. He describes state mandated recycling goals that apply to all municipalities equally as “foolish” (2002, 139). Porter emphasizes that there is great variability in what should be recycled from one municipality to the next, but the rule of thumb should be that the social benefits outweigh the social costs.

Porter is against mandatory recycling (2002, 172) and in favor of a trash-collection charge. In the “scheme” that he believes would work the best,
the advance disposal fee [ADF] on the manufacturer of a product equals the marginal net recycling cost of the product and package (i.e., collection and processing cost net of revenue earned on the recyclable materials), and the trash collection charge on the household equals the excess of the marginal landfill or incinerator disposal cost over the marginal net recycling cost (with all costs being social, not just private costs). (2002, 162)

Porter notes that this scheme “gives the correct incentive to reduce and recycle and gives some…incentive to reuse” (2002, 162). It also provides an incentive for manufactures to use more recyclable materials, can be managed without much difficulty, and does not require fees or subsidies (2002, 162).

**Vernon Smith:**

Smith (1972) proposes the use of Pigouvian taxes to encourage efficient use of resources and recycling:

To economists the natural control device is a Pigouvian system of charges. The idea behind environmental “user” charges is to employ the pricing system to redirect resources in accordance with the reality of public costs associated with environmental use. (614)

The revenues from the taxes should then go towards crediting manufacturers that recycle old materials into a new product or to the municipality that disposes of the waste if it is not recycled (615).

**Margaret Walls:**

Walls (2003) discusses the emerging concept of Extended Producer Responsibility (EPR), mentioned earlier in Palmer and Walls (1999). In accordance with the goals of EPR, she recommends several policy maxims for policymakers. These include:

Using EPR-based [Extended Producer Responsibility] instruments when either illegal disposal or poorly functioning recycling markets present themselves as
problems; and recognizing and dealing with the fact that using policy to motivate DfE [Design for Environment] is always going to be difficult. With respect to the last maxim, it is important that policymakers not let the added cost of instituting a complex policy outweigh the added DfE benefits. (22)

The focus of the “Design for Environment” movement is to encourage producers to manufacture and package their products in an environmentally friendly way. Two examples include using less packing material and manufacturing a product so that is easier to recycle. The concept is closely linked to the notion of extended producer responsibility.

III. Other/Unclassified:

Economists in this section did not come to a specific conclusion that fit neatly into the command and control, guided-market, or free-market categories. Most economists in this section recommended a command or guided-market solution with about equal force.

Jared Creason and Michael Podolsky:

Creason and Podolsky (2001) investigate the economic impact of recycling by constructing a model using primarily state-level empirical data. By “economic impact,” Creason and Podolsky do not mean the traditional cost-benefit test that many economists use when assessing the efficiency of government policy. In their description of economic impact analysis they note:

Economic impact analysis does not “take sides” on this [cost-benefit] issue. Economic impact analysis emphasizes the distributive effects of a policy that, depending on the relative weight decision makers place on efficiency versus distribution, may influence the ultimate policy choice. (163)

Using the economic impact metric, Creason and Podolsky find that, for many states, spending on recycling “creates an important economic
stimulus for the processing and collection industries” that has “a small positive effect on economic development” (149-150).

Vijaya G. Duggal, Cynthia Saltzman, and Mary Williams:

In a discussion of glass and newspaper recycling, Duggal, Saltzman, and Williams (1991) argue that a laissez-faire system will not maximize social welfare and that society needs government intervention to achieve an optimal solution.

Economic welfare analysis tells us that the amount of recycling undertaken by consumers will be less than optimal for two reasons. First, recycling creates a positive externality in that everyone benefits from my recycling efforts (saving landfill space and reducing landfill costs). In the absence of a one to one correspondence between those who make the effort and those who reap the benefit, many will not make the effort voluntarily. Second, recycling is an intergenerational public good. Our recycling efforts today will help to eliminate a potential problem in the future. Given the myopic time preference of most individuals, people will undervalue the current benefits of recycling. (352)

The two above factors cause the private marginal benefit from recycling to be less than the social marginal benefit. From society’s perspective, not enough recycling will be done by individuals because they cannot capture, or are uncompensated for, all of the benefits of their efforts. Therefore, any large scale recycling program must be government initiated either through mandatory regulations or economic incentives. (352)

Jannett Highfill and Michael McAsey:

In order to help planners decide when to implement a recycling program, Highfill and McAsey (1997) develop a model with two strategies for municipal waste disposal: dumping waste into a landfill or recycling it. They conclude:
A municipality that recycles (i) will always simultaneously recycle and use its landfill for some time interval during which (ii) recycling is always increasing while landfill use is declining and (iii) there exists an upper bound on the length of this interval which is independent of the size of the landfill and the municipality’s planning horizon. But the paper has also shown that beyond these conclusions, the specifics of a waste management program depend on the characteristics of the municipality in question, even, or perhaps especially, when the long-run is taken into account. Not only is no single recycling plan going to be optimal for all cities, even the barest outlines of the waste management program differs between communities. For example, cities of approximately the same size but different landfill endowments will begin recycling at different times (perhaps never recycle at all) or have different optimal “active lives” of their existing landfill.

Thus, Highfill and McAsey recommend a decentralized recycling policy, leaving municipal planners with ample room for setting local policy using the appropriate cost-minimizing mix between landfills and recycling programs.

Highfill and McAsey (2001) reach a similar conclusion using a dynamic model of consumption and expenditures on waste with an income stream that is growing over time. Their analysis suggests that richer municipalities will have very high levels of recycling and rely less on landfills, while poorer municipalities will engage in less recycling and utilize their stock of landfill capacity. They conclude again that decentralized recycling policy works best, noting that a one-size-fits-all “recycling policy imposed on municipalities by other government bodies is almost surely going to be inappropriate for some municipalities” (49).

Robin R. Jenkins, Salvador A. Martinez, Karen Palmer, and Michael Podolsky:

Jenkins et al. (2003) find “[m]aking a curbside recycling program mandatory has no statistically discernable effect on intensity of recycling effort for any of the materials [in our study]” (311). They do not
recommend either a free-market or guided-market approach in their paper so I cannot satisfactorily place them in either category.

**Rafael Lusky:**

Lusky (1975) advocates centralized decision making to internalize and correct a sub-optimal amount of natural resource extraction in a laissez-faire environment. He notes that an alternative decentralized solution, employing taxes and subsidies, can achieve the same effect. Within the decentralized scheme, Lusky advocates subsidies to recycling firms, which are separate from the decentralized tax plan (327-28).

In a perfect market for refuse, Lusky (1976) says the government only needs to intervene “for the non-recyclable pollutant that has negative effects upon consumers’ utilities” (101). Lusky cites the market for scrap metal and lesser developed markets for paper, aluminum cans, and glass bottles as evidence of a market for recyclables while cautioning that these may in fact be “ecologically motivated community actions rather than active markets for residues” (101). He concludes that when “refuse markets are not forthcoming” government should intervene to reduce pollution to its optimal level (101).

**Thomas C. Kinnaman:**

Kinnaman (2005) finds that municipal recycling programs are usually initiated because of state requirements or the demands of local residents for a recycling program and not because of careful cost-benefit calculations by policymakers. Kinnaman recommends elimination of three specific policies in which the costs will almost always exceed the benefits: banning certain materials from landfills, subsidizing recycling industries, and setting statewide recycling goals (21).

**Margaret Walls and Karen Palmer:**

Walls and Palmer (2001) construct a comprehensive model of production, consumption, and waste disposal, which incorporates a life-cycle product assessment. A life-cycle assessment of a product includes “enumerations of all of the resources used and pollutants emitted throughout the life-cycle of a product, from resource extraction through manufacturing and ultimately product disposal” (94). In this particular
paper, Walls and Palmer “look at how the existence of life-cycle environmental externalities affects the choice of optimal policy” (95). Their conclusion hinges on the feasibility of Pigovian taxes:

If taxing the upstream pollutants is feasible, then Pigovian emissions taxes along with a combined output tax and recycling subsidy will generate the social optimum. If Pigovian taxes are not feasible, then we find that there are alternate taxes that can achieve the optimum… Alternatively, we find that regulatory standards in combination with taxes can also achieve the first best. (96)

IV. The Free Market Works Best

Free-market economists see little or no need for government intervention in recycling markets. They agree that both command and control policies and guided-market taxes and subsidies usually waste resources and recommend their elimination.

**Terry Anderson and Donald Leal:**

Anderson and Leal (2001) argue recycling is only worthwhile when the value of the resources saved exceeds the resources used in the recycling process. They emphasize the importance of input prices, firms’ desire to minimize costs, and the role of entrepreneurs in deciding the efficient amount of recycling. In short, they advocate a free market in recycling (125–126).

**William Baumol:**

Assuming no externalities, Baumol (1974) sees little need for government involvement in the market for recyclables.

The first point to be made is obvious once stated. In the absence of externalities, competitive general equilibrium must produce an optimal quantity of recycling, as it does of every other economic activity. That is, in such a world the introduction of an exogenous inducement to recycling, would, if anything, decrease social welfare. The relative
cost and quality of virgin and recycled materials would be taken into full account by the free market, and the appropriate decisions taken by it in the absence of outside interferences. (84)

We have seen that in a competitive equilibrium without externalities, induced expansion of recycling will never be beneficial; and in the presence of externalities, the matter requires further investigation. (87)

Even after allowing for externalities, Baumol still warns that forced recycling may still be unwarranted since the recycling process also produces negative externalities. Baumol notes that further study is needed to conclude whether the negative externalities produced in a free market are greater than the externalities produced by the recycling process (85).

**Daniel K. Benjamin:**

Benjamin (2003) concludes that the free market, in most every case, is the proper mechanism for determining the correct amount of recycling.

*Informed, voluntary* recycling conserves resources and raises our wealth, enabling us to achieve valued ends that would otherwise be impossible. In sharp contrast, however, *mandatory* recycling programs, in which people are directly or indirectly compelled to do what they know is not sensible, routinely make society worse off. Such programs force people to squander valuable resources in a quixotic quest to save what they would sensibly discard. On balance, mandatory recycling programs lower our wealth. (25, emphasis in original)

Except in a few rare cases, the free market system is eminently capable of providing both disposal and recycling in an amount and mix that creates the greatest wealth for society. (26)
Julian Simon:

Julian Simon’s position can be succinctly summarized with two brief quotes from his book, *The Ultimate Resource 2*.

[T]here is no more economic warrant for coercing recycling than for coercing other sorts of personal behavior that are moral issues for some—whether people should eat high-fat diets, or pray three times a day, or tell ethnic jokes. (Simon 1996, 287)

People voluntarily recycle valuable resources and throw away less valuable items that take more effort to recycle than they are worth. Coercive recycling is actually more wasteful than throwing things away. It wastes valuable labor and materials that could be put to better use—creating new life, new resources, a cleaner environment. (Simon 1996, 298)

Clark Wiseman:

Wiseman (1992) notes, “far from being a solution to the solid waste problem, the nation’s massive recycling effort—sustained and expanded by subsidies, taxes, and government operation—is itself inherently wasteful” (443). Part of the problem, according to Wiseman, is the misinformation about the safety and capacity of our nation’s landfills fuels wasteful recycling programs (444-445).

Wiseman suggests that garbage collectors (whether public or private) charge a per-unit fee. This charge would lead to an increase in voluntary recycling (455 and 458). To sum up his conclusions, Wiseman notes:

There is ample evidence that recycling is being pushed beyond the economically efficient level as a result not only of the siting problem but also because of misperceptions of the environmental impact of landfills, overestimation of the benefits of recycling, and underestimation of the real costs of recycling which importantly include household time and effort (458).
NO CONSENSUS ON RECYCLING POLICY

After reviewing their judgments concerning household and municipal recycling, it seems clear that economists have yet to reach a consensus on desirable policy. But an analysis of economists’ conclusions, and how they reach those conclusions, still yields some interesting results. Starting with the four categories from the previous section, I sorted the papers into one of four broad approaches undertaken by economists in their research. These four approaches are model-building, nonmathematical theory, empirical papers using quantitative data, and case studies based on different localities’ experiences with recycling. The results are displayed in Table 1 below.

As Table 1 shows, most of the guided-market economists employ a model-building approach, although a significant number use some sort of non-mathematical theory as well. All of the free-market economists fall into the nonmathematical theory category. Of the five command and control papers, two take a model-building approach, two are case studies, and one is primarily nonmathematical theory. Classified in this way, it seems that an economist’s policy conclusions and his approach are highly correlated.

Overall, a majority of economists favor a guided-market approach to recycling policy using the appropriate tax or subsidy to correct for market imperfections. While they agree that there is a market-failure problem, guided-market economists have yet to reach a consensus on the correct tax and subsidy scheme. Smaller subsets of economists favor laissez-faire and command and control policies. Based on their conclusions, economists do appear to be less enthusiastic about the benefits of recycling than the public, but most still see an important role for government in promoting what they concluded is an efficient amount of recycling.
<table>
<thead>
<tr>
<th>Model Building</th>
<th>Command and Control</th>
<th>Guided-market</th>
<th>Other/ Unclassified</th>
<th>Free Market</th>
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MY TAKE:
A FREE-MARKET APPROACH TO HOUSEHOLD RECYCLING

At this point we may ask the question: Why do economists lack a preponderant consensus in favor of laissez faire policy for household recycling and waste disposal? Perhaps the reason lies in their approach. Many of the interventionists see product disposal as an externality of production, but disposal can just as easily be viewed as a service that consumers value after they have consumed a product. A consumer knows when he purchases a product, that after he has consumed it, he will have to dispose of it in some way if he wants to be rid of it. In a free market scenario, a consumer might have three general options for legally disposing of his trash. He might pay another party to haul it away and deposit it into a landfill—option one. Option two might involve the consumer hauling his own garbage to another party’s property where he will pay that party for the right to dispose of his trash. Some household waste, such as aluminum cans, is actually valuable to other parties who would be willing to pay the consumer for these trash items. Selling trash that another party finds valuable is option number three. None of these three potential transactions appears to impose externalities on any third parties. In a free-market setting for household waste, recycling will tend to occur when the benefits of recycling exceed the cost of an alternate option. As Daniel Benjamin notes above, the free market seems routinely capable of handling both waste disposal and recycling.

When governments decide to take over garbage disposal in a community, the situation changes. Private businesses have a strong incentive to please their customers, since more satisfaction usually leads to greater profits. If one firm is unable to provide good service at a reasonable cost, it tends to impel substitution. Government lacks strong incentives toward customer satisfaction. Government enterprises are often riddled with inefficiency and municipal recycling and waste management programs are no different. Economists usually advise against overly intrusive government intervention in private good markets with few third party externalities. So if waste disposal is a routine private good, why should it be treated any differently by economists? The answer seems to be what I

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3 The author wishes to thank Jane Shaw for several specific comments that greatly improved the quality of this section.
believe is the mistaken notion that trash disposal is a public responsibility and not a private good.

The private solution is not perfect. Having users pay for private trash disposal might create an incentive for them to dump trash illegally onto another’s property. But this problem is local, bilateral, and diffuse. It is amenable to resolution or mitigation in particularistic ways—technological, practical, moral, and social, as well as legal. Also it is not necessarily mitigated by recycling programs. Public collection and requirements also impose disposal costs on consumers: collection fees, the time cost of sorting trash for recycling, and all other requirements. And collection subsidies introduce all manner of rent-seeking and taxation inefficiencies. In my view, it would be better to salvage voluntary principles and junk the interventions.

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The Practical Utility of Economic Science

EDWIN CANNAN*

Abstract

If it happened every year that the President of this Section undertook to justify his own existence, I am afraid the Section would become weary. But my four distinguished predecessors have all been drawn from the Civil Service, and though each of us may have doubts about particular branches of the Civil Service, we are most willing to allow that as a whole it is at least a necessary evil, so that we do not get apologies from the Presidents who, so to speak, represent the practice of political economy. I hope, therefore, that you will bear with me if I offer some reasons for thinking that the teaching and study of the theory of economics is not, as many people seem to suppose, a wholly unnecessary evil, but, on the contrary, a thing of very great practical utility.

I do not mean to argue that a knowledge of economic theory will enable a man to conduct his private business with success. Doubtless many of the particular subjects of study which come under the head of economics are useful in the conduct of business, but I doubt if economic theory itself

* Edwin Cannan. The Practical Utility of Economic Science. Original publication: The Economic Journal, Vol. 12, No. 48. Dec., 1902, pp. 459-471. Cannan was then the President of the British Association for the Advancement of Science, Section F: Economics, which later became the Royal Economic Society, and the lecture was his presidential address. The article is no longer under copyright.
is. It does not indeed in any way disable a man from successful conduct of business; I have never met a decent economist who was in a position of pecuniary embarrassment, and many good economists have died wealthy. But economic theory does not tell a man the exact moment to leave off the production of one thing and begin that of another; it does not tell him the precise moment when prices have reached the bottom or the top. It is, perhaps, rather likely to make him expect the inevitable to arrive far sooner than it actually does, and to make him underrate, not the foresight, but the want of foresight of the rest of the world.

The practical usefulness of economic theory is not in private business but in politics, and I for one regret the disappearance of the old name “political economy,” in which that truth was recognized.

One of the commonest complaints of the time is that there is no text-book of economics which commands any really wide approval, and you may therefore, I think, fairly ask me to explain what I mean by the teaching and study of economic theory before I undertake to prove its practical uselessness in the discussion of legislative and administrative measures. I will therefore endeavour to sketch as shortly as possible the course of instruction which the modern teacher of economic theory, if unhampered by too close adherence to traditional standards, puts before those who come to him for instruction.

The first, or almost the first, thing he will do is try to open the eyes of his pupils to the wonderful way in which the people of the whole civilized world now co-operate in the production of wealth. He may perhaps read them Adam Smith’s famous description of the making of the labourer’s coat, a description which required three generations and three great writers to elaborate in the form in which we know it. Or he will ask them to consider the daily feeding of London. There are, he will point out, six millions of people in and about London, so closely packed together that they cannot grow anything for their own consumption, and yet every morning their food arrives with unfailing regularity, so that all but an infinitesimal fraction of them would be extremely surprised if they did not find their breakfast ready to hand. To prepare it they use coal which has been dug from great depths hundreds of miles away in the Midlands or Durham; in consuming it they eat and drink products which have come from Wiltshire, Jamaica, Dakota, or China, with no more thought than an infant consuming its mother’s milk. It is clear that there is in existence some machinery, some organisation for production which, in spite of occasional failures here and there, does its work on the whole with extraordinary success. It is easy to be pessimistic, especially when the weather is damp,
and we are apt to concentrate our attention, and to endeavor to make others concentrate their attention, on this or that defect, and to forget that the system is not made up of defects, but on the whole works very well. Imagine the report of a really outside observer. In all civilised planets, I have no doubt, there must be an institution more or less resembling the British Association. An economist in Mars, let us say, has been favoured with a glimpse of this island through a new mammoth telescope of sufficient power to let him see us walking about, and he is reporting to Section F what he saw. Will he say that he saw a confused scramble for the scanty natural products of the earth? That most people were obviously in a state of starvation? That few had clothes? And that scarcely any were housed? No, truly; he will be much more likely to report that he saw a wonderfully orderly population, going to and from its work with amazing regularity, without a sign of compulsion or unwillingness; that it appeared to be fed and clothed and housed in way extraordinarily creditable on the whole to some mysterious organisation, the nature of which he could only guess it.

Having endeavored to make his pupils recognise that we are organised, and that the organization works, the teacher will go on to show how it works: why things that are wanted are produced in the places where they can be easiest produced and taken to the places where it is most convenient to consume them; why people go to live in large numbers in spots where it is desirable they should work, and leave great areas sparsely inhabited; why more people are brought up to follow an occupation when the desire for its products increases, and fewer when it decreases; why if the harvest is short the consumption is economised so as to spread it over the year; and so on. The answer to all these questions is of course, “self-interest” or “the hope of gain.” Durham coal, Wiltshire milk, Danish butter, Jamaica Sugar, Dakota wheat, and China tea go to London because it pays to send them there. People congregate in London or Belfast because it pays them to work there. More do not come, because it would not pay them. Young people leave agriculture and go to towns to make agricultural implements or bicycles because it pays. The consumption of grain is economised and spread over the year because it pays to hold the stock. If people with one accord left off doing what paid we should all be dead in two months.

The reasons why it pays to do the right thing—to do nearly what an omniscient and omnipotent benevolent Inca would order to be done—are to be looked for in the laws of value. This used to be regarded as a somewhat arid subject, but the discussions of recent years, especially the
contribution made by Jevons and the Austrian school, have fertilised it. Long ago economists pointed out how the much-abused corn-dealer who held out for a higher price saved the people from starvation; and we now, thanks to the theory of final utility, not only know that is a fact, but also why it is a fact, that value rises with the extent and urgency of demand, so that, when a thing is much wanted, much is offered to those who produce it, or are ready to part with it, and consequently its production is stimulated or its consumption economized, as need be.

This will naturally lead to the question of distribution—the question, that is, why much of the produce falls to the share of one individual and little to that of another; why, in a word, some are rich and others poor. The teacher will here explain that the share of each person depends on the amount and value of his contribution to production, whether that contribution be labor or the use of property. He will show how this system of distribution is essential to the existing system of production, where no man is compelled to work or to allow his property to be used by others, and where every man has legal freedom to choose his own occupation and the uses to which he will put his property. He will beware of claiming for it that it is just in the sense in which justice is understood in the nurseries where jam is given when the children are good. There is, he will explain, no claim on behalf of the system that it rewards moral excellence, but only that it rewards economic service. There is no claim that economic service is meritorious. Whether a man can and does perform valuable economic service does not by any means depend entirely on his own volition. His valuable property may have come to him by bequest or inheritance; his incapacity to do any but the least valuable work may be the result of conditions over which he had no control. The system exists not because it is just, or to reward merit, but because it is inextricably mixed up with the system of production. It has one great evil—its inequality. Moralists and statesman have long seen the evils of great inequality of wealth, and now, thanks to modern discoveries in economic theory, the economist is able to explain that it is wasteful, that it makes a given amount of produce less useful, because each successive increment of expenditure yields, as a rule, less enjoyment to the spender. The teacher will go on to show how this organisation of production and distribution is made possible by the order enforced by the government, and how, in various ways, government supplements it or modifies it; but I shall not enlarge upon this part of the teaching of economies, as its usefulness is obvious. My theme is the usefulness of the other part, the explanation of the organisation of
production and distribution so far as it depends on separate property, free labour, and the consequent action of self-interest.

In the first place, I maintain that the widespread dissemination of such teaching would help to do away with a vast amount of most disastrous obstruction of necessary and desirable changes. Take, for example, the obstruction offered to changes in international trade. Of course every conceivable argument has been used by different writers in wholly different circumstances for obstructing the co-operation of mankind in production, as soon as it oversteps a national boundary. But what is the real support of this kind of obstruction? Obviously the fact that certain producers, or owners of certain means of production, are damaged by an increase in the importation of a particular article. Their loss, their suffering, if their loss is severe enough to deserve that name, appeals to popular compassion, and their request for “protection” is easily granted, the new trade is nipped in the bud, and things are forced to remain in their accustomed channels. The same principle is not obtained as between county and county or between province and province, simply because there is then visible to everyone an opposing interest, the interest of the new producers, within the hallowed pale of the national boundary. Adam Smith tells us when the great roads into London were improved, some of the landlords in the home counties protested on the ground that the competition of the more distant counties would reduce their rent. The home counties did not get the protection they wanted, because it was obviously to the interest of the more distant counties that they should not have it. These two interests being balanced, the interest of the consumer, London, turned the scale. So it usually happens that beneficial changes in internal trade are allowed to take their course without obstruction, because the votes of two sets of producers counteract each other, and the consumer’s interest settles the question. But in international trade one of the two sets of producers is outside the country: it consists of hated foreigners; the fact that it will benefit is an argument against rather than for the threatened change in trade, and the consumers therefore feel it patriotic to sacrifice their own interest and vote for protection. But if they were properly instructed in economic theory they would see at once that such magnanimity is entirely misplaced. They would see that it would cut away all international trade, since, if there were no fallacy involved in it, the stoppage of each import taken separately would benefit home producers and damage foreign producers. Even if some of the imported commodities could not be produced at all at home, substitutes, more or less efficient, could be produced, and give all the more employment. Having acquired some notion of the advantages of co-
operation and the territorial division of labor, the consumers would regard
this as a reductio ad absurdum, and after thinking a little further they would
soon see that, after all, there is another set of producers, actual or potential,
within the country who will gain—namely, the producers, present or future,
who will supply the articles which are to go abroad in exchange for the new
import. They will see that what they are asked to do is not to maintain the
amount of national production, but merely to prevent a change in its
character which will be accompanied by an increase in its amount.

Take another example of Chinese obstructiveness to desirable
change. As great cities grow, it becomes convenient that their centres
should be devoted to offices, warehouses, and shops, and that people who
work in these places, and still more their families, should live in the
outskirts. I do not know that anyone has denied this. Certainly the great
majority are willing to admit it. At one time it is believed that a quarter
million of people lived in the square mile compromised within the City of
London; no one supposes that would be convenient now. There is no
reason to suppose that further change in the same direction will not be
desirable in the future. Yet, as incredible as it will appear to future
generations, public opinion, The House of Commons, the London County
Council, and some town councils think, or at any rate act as if they thought,
that the process has now gone far enough, and ought to be stopped; as if
the state of things reached about the year 1891 was to be permanent, to last
for ever and ever. Private owners are indeed still allowed to pull down
dwelling-houses and erect shops and offices, but they are abused for doing
so, and their liberty is at least threatened. But if a new railway or a new
street is made—in all probability with the intention of increasing the
accessibility of the centre from the suburbs—if even a new London Board
School is built, and houses inhabited by persons who have less than a
certain income are pulled down in any of these processes, it is required by
law or parliamentary resolution that other houses for these people must be
built in the neighbourhood. So it comes about that there are in quarters of
London most unsuitable for the purpose enormous and repulsive barrack
dwellings, the sites of which are devoted in secula sepulorum to the housing of
the working classes; while the immense cost of devoting them to this
instead of to their proper purpose is debited to the cost of improving the
facilities for locomotion or to education, and is defrayed principally by the
rates on London property, which chiefly consist of houses, and to some
extent by the higher charges on railways consequent on the restriction of
facilities for extension. Fifty pounds a head is the average loss involved to
the rates of London on every man, woman, and child for whom the
dwellings are provided. Such is the wisdom of practical men uninformed by
instruction in economic theory.

This palpable absurdity could never have been perpetrated if the
general working of the economic organization had been understood. In that
case it would have been seen at once that the extrusion of over 200,000
inhabitants from the City of London in the past, which is admitted to have
been desirable, was effected by the quiet operation of the laws of value. It
would have been seen that, as it became desirable to turn the City to other
purposes, the ground in the City became too valuable to use as bedrooms
and as living-rooms for mothers and children, and this increase of value
drove out the 200,000 inhabitants. It would have been seen that the change
had not come to an end, and no responsible body would have dreamt of
putting themselves in opposition to it by buying sites and writing them
down to 2 per cent of their actual value in order that they might be tied up
for ever and ever to be the homes of a certain numbers of persons with less
than a certain income. If some unusually dense individual who had failed
after many attempts to pass his examination in economic theory had
proposed the policy which had been adopted, he would have been asked
two questions: first, “What peculiar sanctity is there about the position
being occupied in the closing years of the nineteenth century? Why should
this be stereotyped for all time? Why should not the position at the end of
the seventeenth century have been maintained? Why should we not
endeavor to restore the working classes to their old home in the City, and
remove the Bank of England to Tooting?” Secondly, “Whom do you
imagine you will benefit by the policy you propose?”

It is difficult to conceive of any answer to the first question. To the
second the reply of the dunce would, of course, be that he thought the
policy proposed would benefit the people housed on these expensive sites.
This answer would at once be condemned as unsatisfactory. To build
houses on land worth £100,000, and let them to the first-comers of
respectable antecedents at rents which would pay if the land were worth
£2,000, would be a very stupid sort of almsgiving if these respectable first-
comers actually got the difference between the interest on the £100,000 and
the £2,000. But no one supposes that they do get this difference, or any
considerable part of it. The difference is almost entirely pure loss to the
community. The chief immediate effects of the policy are, first, to retain in
the centre the men, women, and children who inhabit the dwellings;
secondly, to retain other workers who perform various offices for these
inhabitants; and thirdly, to ensure a supply of labour for factories which
would otherwise (to the advantage of every one concerned) be driven into
the country by the pressure of the high wages necessary to bring workmen
to the centre or to pay their house rent if they lived there.

So much for the utility of economic theory in preventing obstruction
of desirable charges. My second claim on its behalf is that it serves to hinder
the adoption of specious but illusory projects. This, I think, may be
illustrated by examples closely connected with those which we have already
considered under the head of obstruction.

The people who are most anxious to obstruct changes in the
channels of trade which are coming about of themselves because they are
profitable, are often extremely anxious to promote changes which will not
come about of themselves because they are not profitable. For this end one
of their most favorite devices at present is a State or municipal subsidy to
locomotion or transport between particular points. So we have shipping
subsidies, free grants to light railways, the construction of unprofitable
telegraph lines by the Post Office, and the advocacy, at any rate, of the
construction of unprofitable tramways by municipalities. The practical man,
uninstructed in economic theory, feels uneasy about such projects because
he does not see where he is to stop, and he feels obscurely that a universal
subsidisation would mean ruin. But he does not see why he should not go a
little way, and he goes sufficiently far to involve a loss quite worth
considering. A knowledge of economic theory would come to his assistance
by showing him that, as a rule, the most profitable enterprises are those
which it is most desirable to undertake first, and that the subsidisation of
the less profitable does not create new enterprises, but merely changes the
order from the more desirable to the less desirable. I suppose that if in 1830
Parliament had offered a sufficient subsidy a railway might have been at
once made and worked from Fort William to Fort Augustus, to the great
satisfaction of the inhabitants of Fort Augustus and the intermediate places.
But it is obvious that it was more desirable, in the interests of the whole
community, that the railway from Fort William to Fort Augustus should
wait for seventy years, and that the railway from Manchester to Liverpool,
and many others, be made first.

Then, too, we find people who are not quite so stupid as to think the
working classes should always remain in the places where they were at the
end of the nineteenth century, alleging that the way to cure overcrowding is
for local authorities to enter the building trade in a general way, and build
houses inside or outside their districts, wherever it seems most convenient.
To the mind uninstructed in economic theory it seems obvious that the
larger amount of housing there is the less overcrowding there will be, and
that the more housing local authorities provide the more housing there will
be. Economic theory, with its explanation of the general working of the organisation of production, suggests two objections. First, an addition to the housing in any locality will not be effectual in diminishing overcrowding, in so far as it attracts new inhabitants to the spot; a policy which assumes that the comparative plentifulness of houses is [not] a factor in the determination of the enormous and perpetual migration of people from place to place which is indicated in the tables of birthplaces and births and deaths in the census, is doomed to failure. Secondly, economic theory suggests the reflection that the mere fact of a local authority building some houses will not cause the whole number to be greater, if for every house built by the local authority one less is built by private enterprise, and that this is very likely to happen. Houses have been built by private enterprise in the past, and in these houses nearly the whole population is at present housed. I have seen an enthusiast for municipal housing stand in the empty streets of a town late at night, when every soul in the town was evidently housed, and say in a tone of conviction, “Private enterprise has failed.” In that town four small houses had been built by municipal enterprise and more than ten thousand by private enterprise, and private enterprise was adding hundreds every year, while the housing committee of the corporation was meeting once a year to re-elect its chairman. Is it likely that private enterprise will build as much when it is competed with or supplemented by—the term does not matter—municipal enterprise? Why should it? If the municipality turned baker, would the private bakers continue to bake as much bread? Is not the attempt to stop overcrowding by inducing local authorities to build houses exactly the same thing, and just as absurd as it would be to attempt to cure underfeeding by opening municipal butchers’ and bakers’ shops?

In the long run, I admit, experience teaches. Protection has fallen once in this country, and I have little doubt that it will fall again if it becomes considerable. The policy of obstructing the removal of dwellings from the centre of a great city already excited opposition in the London County Council, though unanimity still reigns in those last homes of extinct superstitions, the Houses of Parliament. Chancellors of the Exchequer and finance committees may be trusted to offer a stout resistance, on what they call financial grounds, to any really great development of the system of subsidies. There is hope even that the municipal building policy may be checked by the laborious inquiries which show by statistics what everyone knows, that the poor are ill-fed and ill-clothed as well as ill-housed, and

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1 *EJW ed. note:* We suspect that Cannan intended a “not” here.
therefore lead people to consider how the poor may be made more able to pay for houses, among other things, instead of simply how houses may be built in the absence of an effective demand for them. But I claim that, in matters such as these, a more widespread appreciation of economic theory, and the quickened intelligence which that would produce, would save us much painful experience, many costly experiments, and an enormous mass of tedious investigation.

Thirdly, and, at any rate on the present occasion, lastly, I claim that the teaching and study of economic theory has great practical utility in promoting peace and good will between classes and nations.

Between classes within the same nation the peacemaking influence of economic theory lies chiefly in the fact that it tends to get rid of that stupid cry for “rights” and “justice” which causes and exacerbates industrial and commercial quarrels. When demand for some commodity falls, or supply from some new quarter arises, and profits and wages shrink, the workers cry out that they are being unjustly treated, because they have the unfounded belief that reward is or ought to be proportional to moral merit, and they are not conscious of any diminution of their moral merit. They demand a living wage, or a minimum wage and employment for all who happen to have been hitherto employed in the trade, rend the air with complaints, and get subscriptions from a compassionate but ill-informed public. We cannot, of course, expect people who suffer by them to regard even the most beneficial operations of the economic organisation with enthusiasm or even satisfaction. It would be absurd to do so. But all the same, it is true that a wider apprehension of the fact that it is only by raising and lowering the advantages offered by different employments that production is at present regulated so as to meet demand would not only diminish the dissatisfaction, but also, which is more important, diminish the actual suffering by causing transitions to be less obstinately resisted. The present fashion of deploring rapid changes of trade and dwelling-place is a most unfortunate one; the ordinary forms of labour do not, as a matter of fact, require such specialised ability that there should be much difficulty in changing from one to another; and surely it is much better for a man to work at several different things at different places in the course of his life than to stick for ever in the same place, surrounded by the same objects, going through the same monotonous round of duties? Anything which will weaken the present obstructive sentiment and lead people to regard the necessity of a change of employment or residence as temporary inconvenience rather than a cruel injustice is to be warmly welcomed.
It is not, however, only the poor and the industrious who would be taught by a greater knowledge of economic theory not to kick against very necessary pricks. The rich, both industrious and idle, would be taught to be far more tolerant than they are of attempts to diminish inequality of wealth by reducing the wealth of the rich as well as increasing that of the poor. The economist may be a little more annoyed with the workman who insists that he ought to have thirty shillings a week for producing something worth fifteen shillings, or five shillings, or nothing at all, but he can only have hearty contempt for the millionaire who holds up his hands in holy horror and murmurs “confiscation,” “robbery,” “eighth commandment,” when it is proposed to relieve him of a fraction of a farthing in the pound in order to bring up destitute orphans to an occupation in which they may earn twenty-five shillings a week. The sanguine teacher of economic theory has hopes of making even such a man see that he has his wealth, not because Moses brought it down from Sinai, or because of his own super-eminent virtue, but simply because it happens to be convenient, at any rate for the present, for society to allow him to hold it, whether he obtained it by inheritance or otherwise. In other words, that private property exists for the sake of production, not for the sake of the particular kind of distribution which it causes. Some, I know, say that the rich are so few that it does not much matter whether they acquiesce in the measure meted to them or not but that is not the teaching of history; and I think you will agree with me that for the progress of the whole community it is, in practice, quite as important to secure the acquiescence of the rich as of the poor.

In regard to international relations, the first business of the teacher of economic theory is to tear to pieces and trample upon the misleading military metaphors which have been applied by sciolists to the peaceful exchange of commodities. We hear much, for example, in these days of “England’s commercial supremacy,” and of other nations “challenging” it, and how it is our duty to “repel the attack,” and so on. The economist asks “what is commercial supremacy?” and there is no answer. No one knows what it means, least of all those who talk most about it. Is it selling goods dear? Is it selling them cheap? Is it selling a large quantity of goods in proportion to the area of the country? Or in proportion to its area or population? Or absolutely, without any reference to its area or population? It seems to be a wonderful muddle of these various and often contradictory ideas rolled into one. Yet what a pile of international jealousy and ill-feeling rests on that and equally meaningless phrases! The teacher of economic theory analyzes or attempts to analyze these phrases, and they disappear, and with them go the jealousies suggested by them.
When misleading metaphors and fallacies are dismissed, we are left with the facts that foreign trade—the trade of an area under one government with areas under other governments—is merely an incident of the division of labor, and that its magnitude and increase are no measures of the wealth and prosperity of the country, but merely of the extent to which the country finds it convenient to exchange commodities of its own growth or manufacture for commodities produced elsewhere. If the city of York were made independent, and registered its imports and exports, they would come out far larger per head of population than those of the United Kingdom or any other great country. Should we be justified in concluding York to be far richer than any great country? If means were discovered of doubling the present produce of arable land with no increase of labour, much less corn would be imported to Great Britain and less of other goods would be exported to pay for it; the foreign trade of the country would consequently be diminished, but would the people be any less prosperous? What jealousies, heart-burnings, and unfounded terrors leading to hatred would be extinguished if only these elementary facts were generally understood!

To anyone who has once grasped the main drift of economic theory, it will be plain that the economic ideal is not for the nation any more than for the family that it should buy and sell the largest possible quantity of goods. The true statesman desires for his countrymen, just as the sensible parent desires for his children, that they should do the best paid work of the world. This ideal is not to be obtained by wars of tariffs, still less by that much greater abomination, real war, with all its degrading accompaniments, but by health, strength and skill, honesty, energy, and intelligence.

ABOUT THE AUTHOR

Edwin Cannan (1861-1935) taught at the London School of Economics from 1895 to 1926, serving a long stretch as chairman after 1907. He had a reputation as a critic of classical economics, particularly for his 1893 work, *A History of the Theories of Production and Distribution in English Political Economy from 1776 to 1848*, and yet devoted to Adam Smith, represented by his famed edition of *The Wealth of Nations* (1904), the standard edition for generations, and by his explications of Smith, such as “Adam Smith as Economist: The Gospel of
Mutual Service,” *Economica*, 1926. Ideologically, he started as a moderate “new liberal” interventionist, but around the time of his editing of Smith and the present essay (1902) moved sharply toward classical liberalism, and thereafter became a strong defender of classical liberal economic policies. Cannan realized an economics of plain language, concrete illustration, and institutional pertinence, and wrote a great deal for the general reader. Friedrich Hayek wrote of Cannan: “Many of his economic essays which he published in two volumes, *The Economic Outlook* (1912) and *An Economist’s Protest* (1927), deserve, even now, renewed and wider attention, and translation into other languages. Their simplicity, clarity and sound common sense make them models for the treatment of economic problems, and even some that were written before 1914 are still astonishingly topical. Cannan’s greatest merit, however, was the training, over many years, of a group of pupils at the London School of Economics.”
ECONOMICS IN PRACTICE

Reasons for Supporting the Minimum Wage: Asking Signatories of the “Raise the Minimum Wage” Statement

DANIEL B. KLEIN AND STEWART DOMPE*

Abstract

In October 2006 the Economic Policy Institute (EPI) released a formal statement entitled, “Hundreds of Economists Say: Raise the Minimum Wage” (link). We made a questionnaire and sent it to almost all of the 659 signatories. Ninety-five graciously participated. This article presents the questionnaire and results. In conducting the questionnaire, we promised not to comment on the results, and so we don’t.

The statement organizers listed 15 leading economists, namely Henry Aaron, Kenneth Arrow, William Baumol, Rebecca Blank, Alan Blinder, Peter Diamond, Ronald Ehrenberg, Clive Granger, Lawrence Katz, Lawrence Klein, Frank Levy, Lawrence Mishel, Alice Rivlin, Robert Solow, and Joseph Stiglitz, and then another 644 signatories, making a total of 659.

Here is the statement in full, clipped directly from the original pdf file:

* Department of Economics, George Mason University. Fairfax, VA 22030. We thank the following individuals for help in refining the questionnaire: Niclas Berggren, Ben Powell, Robin Hanson, Per Skedinger, Bryan Caplan, Russell Roberts, Ted Balaker, Andreas Bergh, Robert Whaples, and Jac Heckelman. And we thank the 95 individuals who participated in the project, and Henry Aaron, Ronald Ehrenberg, and Robert Solow for permission to reproduce their correspondence.
The minimum wage has been an important part of our nation’s economy for 68 years. It is based on the principle of valuing work by establishing an hourly wage floor beneath which employers cannot pay their workers. In so doing, the minimum wage helps to equalize the imbalance in bargaining power that low-wage workers face in the labor market. The minimum wage is also an important tool in fighting poverty.

The value of the 1997 increase in the federal minimum wage has been fully eroded. The real value of today’s federal minimum wage is less than it has been since 1951. Moreover, the ratio of the minimum wage to the average hourly wage of non-supervisory workers is 31%, its lowest level since World War II. This decline is causing hardship for low-wage workers and their families.

We believe that a modest increase in the minimum wage would improve the well-being of low-wage workers and would not have the adverse effects that critics have claimed. In particular, we share the view the Council of Economic Advisors expressed in the 1999 Economic Report of the President that “the weight of the evidence suggests that modest increases in the minimum wage have had very little or no effect on employment.” While controversy about the precise employment effects of the minimum wage continues, research has shown that most of the beneficiaries are adults, most are female, and the vast majority are members of low-income working families.

As economists who are concerned about the problems facing low-wage workers, we believe the Fair Minimum Wage Act of 2005’s proposed phased-in increase in the federal minimum wage to $7.25 falls well within the range of options where the benefits to the labor market, workers, and the overall economy would be positive.

Twenty-two states and the District of Columbia have set their minimum wages above the federal level. Arizona, Colorado, Missouri, Montana, Nevada and Ohio, are considering similar measures. As with a federal increase, modest increases in state minimum wages in the range of $1.00 to $2.50 and indexing to protect against inflation can significantly improve the lives of low-income workers and their families, without the adverse effects that critics have claimed.
We made a questionnaire to explore the reasoning of the signatories. Here is the cover message that accompanied the questionnaire:

Cover message that accompanied the questionnaire

Message subject: Reasons for supporting the minimum wage

Dear Professor [name],

My name is Daniel Klein and I am a Professor of Economics at George Mason University. I write in reference to the “Raise the Minimum Wage” statement organized by the Economic Policy Institute and signed by 659 economists, including you. This message contains a questionnaire of nine questions specific to the minimum wage statement. I intend to write up the results for publication. The article may appear in Econ Journal Watch, an online journal of which I am editor.

The write-up will be confined to the following: (1) summarizing the data of previous surveys that asked economists about the minimum wage (showing that economists are rather divided); (2) presenting the EPI statement; (3) presenting this questionnaire letter verbatim; (4) summarizing the results of this questionnaire (quoting some responses); (5) linking to an Excel file containing the names of all signatories and their responses in full (the questionnaire is not anonymous). I will refrain from commenting on the results. Hence, the “last word” in this installment of the conversation will go to the questionnaire responses provided by the 659 economists.

I myself oppose the minimum wage. But please be assured that there are no “traps” being set here. This questionnaire project is nothing but an elicitation of the reasons for your support of an increase in the minimum wage.

The minimum wage is one of those dividers within the profession. Conversing in this manner could help illuminate differences in interpretation and judgment, and possibly resolve some of the disagreement.

“Confirming”/“Declining”: If you cannot at this moment complete the questionnaire but think you might, I will be very grateful if you could respond and write simply “confirming.” That way I will not send any follow-up emails or hardcopy. If you decide not to complete the questionnaire, please respond “declining.”

1 About 15 percent of the questionnaires (those at the start of the alphabet) used “survey” in place of “questionnaire” (after starting we decided that “questionnaire” was more fitting).
The questionnaire follows below.

Thank you for your attention.

Respectfully,

Daniel Klein
Professor of Economics, George Mason University
Editor, Econ Journal Watch

The cover message promised that the write-up would be confined as specified. Accordingly, this article undertakes only those tasks. We hope that others will find the results valuable and use them to deepen the conversation.

Here is the entire questionnaire, including the instructions:

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**QUESTIONNAIRE OF THE 659 ECONOMISTS SUPPORTING AN INCREASE IN THE MINIMUM WAGE**

**Questionnaire Instructions**

Kindly respond to this email message by hitting “Reply” to reproduce the questionnaire. Mark approval of a response with an “x” like this

A. [x] sample response that you approve

For responses you don’t approve, just leave the [ ] blank.

In responding to open-ended questions, simply insert your written responses. Use your “Enter” key to create a new line, if you prefer. It is fine to elaborate, but don’t feel expected to give more than brief responses.

There are nine questions. Some are response-contingent and may be inapplicable, depending on your preceding responses.

Don’t hesitate to skip individual questions that are too much trouble (e.g., the solicitation of citations to supporting literature). Incomplete questionnaires are OK, better than no response at all.

The Questionnaire

Please provide your name:
SECTION 1: MECHANISMS
The fourth paragraph of the statement says that you believe an increase in the federal minimum wage to $7.25 will bring net benefits to workers and to the overall economy. I’d like to ask you about the mechanisms you see at work, generating the benefits. Consider two broad categories of mechanisms, first labor-market mechanisms, and second, broad socio-political mechanisms.

Q1: Please indicate your view of the following statement: An increase in the federal minimum wage to $7.25 would generate net benefits for workers and the overall economy through its effects on labor-market mechanisms.
   A. [ ] I agree with that statement.
   B. [ ] I disagree with that statement.

If you responded B, skip the next two questions and go directly to Q4.

Q2 (only for those who responded A, agree, above): Kindly identify the beneficial labor-market mechanisms (it’s OK to approve more than one):
   A. [ ] Equalizing an imbalance in bargaining skills (i.e., bargaining experience, articulateness, confidence)
   B. [ ] Inducing employers with monopsony power to increase employment by their firm.
   C. [ ] Inducing a transfer from employers to (generally less well off) workers, albeit with possible small disemployment effects.
   D. [ ] Coordinating the low-wage labor market by making it common knowledge that jobs pay at least $7.25.
   E. [ ] Other, please specify:

Q3 (again, only for those who responded A, agree, to Q1): For each mechanism that you indicated belief in in the previous question, if it’s not too much trouble, kindly indicate one or two sources of information (e.g. publications) that you feel support that belief:
   A. Recommended source on the bargaining-skills mechanism:
   B. Recommended source on the monopsony mechanism:
   C. Recommended source on induced-transfer mechanism:
   D. Recommended source on the coordination mechanism:
   E. Recommended source on other mechanisms specified:

Q4: Regardless of how you responded to the previous questions, please indicate your view of the following statement: An increase in the federal minimum wage to $7.25 would generate net benefits for workers and the overall economy through its effects on broad socio-political mechanisms, such as those involving the character of the polity.
   A. [ ] I agree with that statement.
   B. [ ] I disagree with that statement.
Q5: If you agreed with the previous statement (in Q4), kindly tell us how you think about those socio-political mechanisms (a few words, or, you are welcome to elaborate and to cite recommended sources):

SECTION 2: POSSIBLE NEGATIVE ECONOMIC CONSEQUENCES OF INCREASING THE MINIMUM WAGE TO $7.25

Q6: Virtually every policy action has at least some “winners” and some “losers.” The following is a list of six possible negative consequences of the proposed increase in the minimum wage. Please mark each of these with one of the following three symbols:
s = significant economic drawback
m = minor economic drawback
n = not a substantive consequence (that is, the claim is false)

A. [ ] Because they cannot legally compete by lowering their price below $7.25, some individuals will not get employed (or will work fewer hours), regrettable because they miss out on income or work experience.
B. [ ] Because they cannot legally compete by lowering their price below $7.25, some individuals who do work will do so under otherwise less favorable conditions (such as fewer perks, less recognition or consideration, less training or instruction, harder work, etc.).
C. [ ] Because of the increase to $7.25, some workers will face a flatter time-profile of wage increases.
D. [ ] Because of the increase to $7.25, some workers will work illegally.
E. [ ] Because of the increase to $7.25, employers will enjoy less producer surplus.
F. [ ] Because of the increase to $7.25 and higher costs of production, consumer well-being will decline (because of higher prices, lower quality, fewer options).

SECTION 3: THE MINIMUM WAGE AND LIBERTY

In one manner of speaking, liberty is freed from political or legal restrictions on one’s property or freedom of association. Subscribers to this definition are apt to say that the minimum wage law is coercive because it (along with concomitant enforcement) threatens physical aggression against people for engaging in certain voluntary, consensual acts (namely, employing people at sub-minimum wages). (Notice that even subscribers to this definition of liberty recognize that it does not by itself carry a policy recommendation; values other than liberty exist and might conflict with it.)

Q7: Please indicate which of the following options best fits your view of this semantic issue:
A. [ ] I agree that that definition of liberty is the primary definition of liberty, and in that sense the minimum wage law is coercive.
B. [ ] I give some weight to that definition of liberty, but not primary weight; the minimum wage law is only coercive in a sense.
C. [ ] I give little to no weight to that definition of liberty; the minimum wage law is not coercive in any significant sense.
D. [ ] Other [please specify]:

Q8: If you responded either B or C to the previous question, please fill in A or B below:
A. [ ] To me, the primary meaning of liberty is [fill in]:
B. [ ] To me, in such political/legal discourse, “liberty” is not particularly meaningful at all.

GENERAL FEEDBACK
Q9: If you have general remarks about the minimum wage issue or this questionnaire, please provide them here:

Thank you for completing the questionnaire. Please email the completed questionnaire to minwage@gmu.edu by December 20, 2006.

[End of questionnaire]

Before turning to the results of this investigation, we report the results of minimum-wage questions from other surveys of economists.

MINIMUM-WAGE SURVEYS: A REVIEW OF FINDINGS

The present occasion seems ripe to report on all known minimum-wage questions asked of US economists. The matters have generally been of two sorts: a general policy judgment, and the disemployment of young and unskilled workers. At the end of this section we also summarize results for other scholars and the general public.

Surveys of US Economists’ Policy Positions on the Minimum Wage

In policy judgment, economists not only lack consensus, but even show a U-shaped pattern of judgment. At the time of this writing, the most recent survey of economists was Robert Whaples’s 2005 survey, sent to 210 randomly selected American Economic Association members (Whaples 2006). The 77 respondents to the following question show a U-shaped pattern:
Table 1: Robert Whaples 2005 survey of AEA members

<table>
<thead>
<tr>
<th>The federal minimum wage in the U.S. should be:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. eliminated.</td>
<td>46.8%</td>
</tr>
<tr>
<td>b. decreased.</td>
<td>1.3</td>
</tr>
<tr>
<td>c. kept at the current level.</td>
<td>14.3</td>
</tr>
<tr>
<td>d. increased by about 50 cents per hour.</td>
<td>5.2</td>
</tr>
<tr>
<td>e. increased by about $1 per hour.</td>
<td>15.6</td>
</tr>
<tr>
<td>f. increased by more than $1 per hour.</td>
<td>16.9</td>
</tr>
</tbody>
</table>

Klein and Stern (2006) report on their 2003 survey of 1000 AEA members and received 264 responses.\(^2\) Again we see a U-shape:

Table 2: Klein & Stern’s 2003 survey of AEA members

<table>
<thead>
<tr>
<th>Minimum wage laws :</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support strongly</td>
<td>28.4%</td>
</tr>
<tr>
<td>2. Support mildly</td>
<td>18.9</td>
</tr>
<tr>
<td>3. Have mixed feelings</td>
<td>14.4</td>
</tr>
<tr>
<td>4. Oppose mildly</td>
<td>17.8</td>
</tr>
<tr>
<td>5. Oppose strongly</td>
<td>20.5</td>
</tr>
<tr>
<td>Have no opinion</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Although differences in wording cloud comparison between Klein & Stern and Whaples, the two surveys both indicate that economists are pretty evenly divided on the policy issue.

It should be noted that there might be an ideological disparity between AEA members and U.S. economists defined by degree or by academic position. This is a matter we don’t know a lot about, but there is some reason to believe there is a social-democratic tilt to the AEA, at least in more recent years (McEachern 2006; Klein 2006). It is possible that the minimum wage finds more support from the median AEA member than the median economist.

\(^2\) For a breakdown by Democratic/Republican voting, see Klein and Stern (2007).
**Two Surveys of Labor Economists**

In 1996, Victor R. Fuchs, Alan B. Krueger, and James M. Poterba surveyed all self-identified labor economists (not only in economics departments) at the 40 top research universities (Fuchs et al 1998, 1388). The respondents were asked to assess “Increase the minimum wage from $4.25 to $5.15 per hour over two years” by making a mark along a continuous scale from “strongly oppose” (given a value of zero) to “strongly favor” (given a value of 100). Among the 65 responses, the mean was 53, the median 50, and the standard deviation 30, illustrating what the authors say about the investigation generally: “The most striking result is the extensive disagreement among economists about policy proposals in their specialty” (p. 1390).

Another survey of labor economists asked a similar question. In 1994, Robert Whaples mailed a questionnaire to 193 randomly selected labor economists who were members of the AEA, and asked them to assess the claim that “the current minimum wage should be increased.” Among the 75 who answered the question, 42 percent generally agreed, 15 percent agreed with provisos, and 43 percent generally disagreed (Whaples 1996, plus unpublished data from Whaples\(^3\)). Thus, the average level of support for the minimum wage is somewhat higher among labor economists than among AEA members.

**The “Young and Unskilled” Question**

Beginning with the landmark 1976 survey by Kearl et al (1979), many surveys have asked economists whether they “generally agree,” “agree with provision,” or “generally disagree” with the statement: “A minimum wage increases unemployment among young and unskilled workers.” Over time, economists have become less favorable to the statement, as shown in Table 3.

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\(^3\) Whaples also asked how much teenage employment would decrease from a 10 percent increase in the minimum wage; we refrain from reporting the results here.
Table 3: Survey results for the “young and unskilled” question

“A minimum wage increases unemployment Among young and unskilled workers”

<table>
<thead>
<tr>
<th>Year, Survey</th>
<th>Reference</th>
<th>Generally Agree</th>
<th>Agree with provisions</th>
<th>Generally Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys based principally on general AEA membership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976, 211 of 600 AEA members, stratified.</td>
<td>Kearl et al 1979</td>
<td>68%</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>1990, about 32 percent of 700 economists, stratified</td>
<td>Alston et al 1992, 206</td>
<td>61</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>2000, about 300 of 1000 AEA members</td>
<td>Fuller and Geide-Stevenson 2003, 378</td>
<td>45.6</td>
<td>27.9</td>
<td>26.5</td>
</tr>
<tr>
<td>Survey of labor economists</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994, 77 of 193 labor economists (all AEA members)</td>
<td>Whaples 1996 + unpub. info from Whaples</td>
<td>50</td>
<td>37</td>
<td>13</td>
</tr>
<tr>
<td>Surveys of econ grad students at Chicago, Columbia, Harvard, MIT, Stanford, Yale, and (only for the later survey) Princeton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985, 212 of about 700 grad students</td>
<td>Colander and Klamer 1987; Colander 2005, 189</td>
<td>34</td>
<td>39</td>
<td>18</td>
</tr>
<tr>
<td>Ca 2002, 231 of about 850 grad students</td>
<td>Colander 2005, 189</td>
<td>33</td>
<td>38</td>
<td>23</td>
</tr>
</tbody>
</table>

Notes: (1) The percentages in a line might sum to less than 100 because no opinion/non-responses are not reported here. (2) There are very minor variations in wording, e.g., “generally agree” is here equated with “agree”; “agree with provisions” is here equated with “agree with reservations”; etc.

Additionally, in 2000, Colander re-sampled as best he could the graduate students originally responding in 1985, received 45 responses, and found that their belief in young-and-unskilled disemployment had increased somewhat (Colander 2003).
In 1996, Moorhouse, Morris, and Whaples (1999) asked the young-and-unskilled question, using a five point scale, of members of the American Law and Economics Association (ALEA), who overwhelmingly believed in disemployment. In 2000, Whaples and Heckelman (2005, 76) asked the same of smallish samples of members of the AEA and of the American Political Science Association, and almost all 326 members of the Public Choice Society (PCS). Compared to the AEA members, economist members of PCS believed very much more in disemployment. Thus, there are some specialized groups and associations who strongly believe in young-and-unskilled disemployment.

Many surveys have put the “young and unskilled” question to economists outside the United States. Of economists in France (surveyed ca 1980), 16.7 percent generally agree, 21 percent agree with provisions, and 59.8 percent generally disagree that a minimum wage increases unemployment of the young and unskilled. Combining data as reported in Frey et al (1984, 991), Block and Walker (1988, 140), Ricketts and Shoesmith (1990), and others, Anderson, Blandy, and Carne (1993) provide a valuable cross-country comparison. Following their scoring system (p. 11), the economist belief in young-and-unskilled disemployment by country is shown in Table 4. Note that minimum wage laws differ in form in different countries, so the term might signify somewhat different things to economists in different countries.

Table 4: Economist belief in disemployment, by country
(surveys ca 1980-1993)

<table>
<thead>
<tr>
<th>Country</th>
<th>Anderson et al (1993) metric of belief in disemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>83.5</td>
</tr>
<tr>
<td>Canada</td>
<td>81.0</td>
</tr>
<tr>
<td>Australia</td>
<td>78.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>78.0</td>
</tr>
<tr>
<td>Taiwan/South Korea/Hong Kong/Singapore</td>
<td>75.7</td>
</tr>
<tr>
<td>New Zealand</td>
<td>69.1</td>
</tr>
<tr>
<td>Thailand/Indonesia/Malaysia/Philippines</td>
<td>68.6</td>
</tr>
<tr>
<td>Germany</td>
<td>63.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>61.5</td>
</tr>
<tr>
<td>Switzerland</td>
<td>59.4</td>
</tr>
<tr>
<td>Austria</td>
<td>55.8</td>
</tr>
<tr>
<td>Japan</td>
<td>42.5</td>
</tr>
<tr>
<td>France</td>
<td>33.7</td>
</tr>
</tbody>
</table>
Surveys of Non-Economists

One study put the “young and unskilled” question to some non-economists. Fuller et al. (1995, 231) surveyed delegates of the 1992 Republican and Democratic national conventions. The Republican delegates had a belief distribution quite similar to that of the 1990 economists line in Table 3, whereas the Democrats deviated greatly, with only 14.6 percent “mainly agree,” 10.7 percent “neither agree/disagree,” and 73.2 percent “mainly disagree” that a minimum wage increases unemployment among the young and unskilled.

In Spring of 2003, Alan Blinder and Alan Krueger (2004) conducted a random telephone survey of the US population eighteen and older. They completed 1,002 surveys and weighted by demographic variables to match US Census estimates. They asked, “Do you think the federal minimum wage should be increased?”:

Yes 75 percent  
No 21 percent  
Don’t know or refused 4 percent

The results comport well with public opinion surveys going back decades. Support for the minimum wage is clearly much more pervasive among the general public than among academic economist (this pattern, according to Bryan Caplan, goes for most government intervention, except possibly welfare-state policies; Caplan 2007). Blinder and Krueger add that support for raising the minimum wage was stronger among women than men, among nonwhites than white, among non-college-educated than college-educated, among lower-income than higher-income, among voters than non-voters, and among “liberals,” “moderates,” and “haven’t though much about its” than among “conservatives” (pp. 354-55).

As mentioned, AEA members were asked about minimum wage laws, with “support strongly” scored as 1, “support mildly” 2, “have mixed feeling” 3, “oppose mildly” 4, and “oppose strongly” 5. The same survey was administered to five other scholarly associations:

<table>
<thead>
<tr>
<th>Scholarly Association</th>
<th>Ave response to minwage q</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Economic Association:</td>
<td>2.8</td>
</tr>
<tr>
<td>American Anthropological Association:</td>
<td>1.2</td>
</tr>
<tr>
<td>American Historical Association:</td>
<td>1.3</td>
</tr>
<tr>
<td>American Political Science Association:</td>
<td>1.6</td>
</tr>
<tr>
<td>American Sociological Association:</td>
<td>1.2</td>
</tr>
<tr>
<td>American Society for Political and Legal Philosophy:</td>
<td>1.7</td>
</tr>
</tbody>
</table>
The lowest possible average is 1.0. Thus, among the other disciplines, support is strong and overwhelming. In terms of distance from 1.0, economists are strikingly less supportive, even though with an average of 2.8 they lean slightly in favor of the minimum wage (3.0 being the midpoint of the scale).4

Summary of all survey results

Several points emerge from the various surveys: (1) US economists are not only divided over the minimum wage, but the distribution of policy opinion is U-shaped, suggesting deep-seated cleavages; (2) The average level of support for the minimum wage is somewhat higher among labor economists than among AEA members; (3) AEA members mostly, but not overwhelmingly, think that minimum wages increase unemployment of the young and unskilled, but that belief has weakened in recent decades; (4) Graduate students are less inclined to believe in young-and-unskilled disemployment; (5) Economist belief in disemployment seems to be highest in the United States and lowest in France; (6) Whereas AEA members are pretty evenly divided on the policy, the general US population shows consistent and strong majority support for raising the minimum wage; (7) Overwhelmingly, scholars in anthropology, history, philosophy, political science, and sociology support the minimum wage.

RESULTS OF OUR QUESTIONNAIRE

Response Rate

The “Raise the Minimum Wage” statement listed 659 individuals and institutional affiliation.5 We gathered email addresses using institutional websites, the AEA directory, Google, etc. Using a specially created email account, during November and early December 2006 we proceeded to send the cover-message and questionnaire. We used the subject-line “Reasons for supporting the minimum wage,” and avoided attachments, URLs, and

---

4 The average response values for the six associations are calculated from the original data and are close to those reported in Klein and Stern (2005, 279), which breaks down the data by Democratic/Republican voting and treats only the academic respondents.

5 The statement lists 15 leading economists and then states, “650 of their fellow economists agree,” with the rest following. Actually, the rest number only 644 (this number corrects for the duplication of Aniss Bahrinian, who is also listed as Bahrinian Aniss).
other features that might trigger spam filters. We watched carefully for bounce-backs, and when they occurred searched for alternate email addresses; we also followed up when automated responses required manual response to pass through a filter or indicated an alternate email address. We obtained what appeared to be sound, working email addresses for 618 of the 659. Those who did not acknowledge our send were emailed a follow-up reminder notice (and again we watched carefully for bounce-backs). For the individuals for whom we could find no email address, we obtained postal addresses in all but 14 cases, and sent the questionnaire with a SSE envelope, and received one PO return. We therefore count the number of contacted persons as 644. The responses were as follows:

Table 5: Response rate to the Questionnaire, of 644

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>(n/644)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed questionnaires</td>
<td>95</td>
<td>15%</td>
</tr>
<tr>
<td>Declines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• acknowledged but declined</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>• no response whatever</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>TOTAL Declines</td>
<td>549</td>
<td>85%</td>
</tr>
</tbody>
</table>

The “no response whatever” rate might be slightly overstated, in that some intended recipients probably did not in fact see the email communication for one reason or another, but we feel confident that such number would have been no more than a few percent (particularly as signatories would quite plausibly be in communication with each other about the questionnaire). Thus, upwards of 80 percent refrained from engaging.

We do not presume to interpret that rate; the questionnaire is unconventional in not being anonymous and in being openly at odds on the issue, so the response rate is not readily comparable to ordinary surveys.

---

6 For all details, see the “Communication” Excel worksheet.
7 We count as “completed” any returned questionnaire with at least one question answered. Aside from Jennifer Ball, who responded only to Q1, Q2, and Q9, the other respondents pretty much responded to all major questions.
8 This includes five individuals who confirmed that they had received the questionnaire but never completed it.
The 95 individuals who completed the questionnaire

(Thank you!)

<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katie Baird</td>
<td>Christopher Gunn</td>
<td>William Ross</td>
</tr>
<tr>
<td>Dean Baker</td>
<td>Robert Haveman</td>
<td>Jesse Rothstein</td>
</tr>
<tr>
<td>Jennifer Ball</td>
<td>Mark R. Hopkins</td>
<td>Joydeep Roy</td>
</tr>
<tr>
<td>David Barkin</td>
<td>Alan G. Isaac</td>
<td>Gregory M. Saltzman</td>
</tr>
<tr>
<td>Barbara Bergmann</td>
<td>Pascale Joassart</td>
<td>Michael Sattenger</td>
</tr>
<tr>
<td>Eli Berman</td>
<td>Farida C. Khan</td>
<td>A. Allan Schmid</td>
</tr>
<tr>
<td>L. Josh Bivens</td>
<td>Kevin Lang</td>
<td>Stephen J. Schmidt</td>
</tr>
<tr>
<td>Margaret Blair</td>
<td>Frederic S. Lee</td>
<td>Eric A. Schutz</td>
</tr>
<tr>
<td>Robert A. Blecker</td>
<td>Sang-Hyop Lee</td>
<td>Bruce R. Scott</td>
</tr>
<tr>
<td>Alan Blinder</td>
<td>Frank Levy</td>
<td>Timothy M. Smeeding</td>
</tr>
<tr>
<td>Barry Bosworth</td>
<td>Richard Lotspeich</td>
<td>Janet Spitz</td>
</tr>
<tr>
<td>Joyce Burnette</td>
<td>Daniel Luria</td>
<td>Howard Stein</td>
</tr>
<tr>
<td>Karl E. Case</td>
<td>Mark H. Maier</td>
<td>Jeffrey Stewart</td>
</tr>
<tr>
<td>Menzie Chinn</td>
<td>Catherine L. Mann</td>
<td>Paul Swaim</td>
</tr>
<tr>
<td>Charles R. Chittle</td>
<td>Julie A. Matthaei</td>
<td>Christopher Udry</td>
</tr>
<tr>
<td>Patrick Conway</td>
<td>Elaine McGrate</td>
<td>Vivian Grace Valdmanis</td>
</tr>
<tr>
<td>Paul N. Courant</td>
<td>Kate McGovern</td>
<td>William Van Lear</td>
</tr>
<tr>
<td>Peter Dorman</td>
<td>Richard McIntyre</td>
<td>Lane Vanderslice</td>
</tr>
<tr>
<td>Arindrajit Dube</td>
<td>Andrew McLennan</td>
<td>Mark Votruba</td>
</tr>
<tr>
<td>Amitava Dutt</td>
<td>Jo Beth Mertens</td>
<td>Jeffrey Waddoups</td>
</tr>
<tr>
<td>Fritz Efaw</td>
<td>Thomas R. Michl</td>
<td>William Waller</td>
</tr>
<tr>
<td>Robert M. Feinberg</td>
<td>Lawrence Mishel</td>
<td>Bernard Waddoups</td>
</tr>
<tr>
<td>Susan F. Feiner</td>
<td>John R. Morris</td>
<td>Robert W. Wassmer</td>
</tr>
<tr>
<td>Marianne A. Ferber</td>
<td>Reynold F. Nesiba</td>
<td>Mark Weisbrodt</td>
</tr>
<tr>
<td>John Fitzgerald</td>
<td>Laurie Nisonoff</td>
<td>Charles L. Weise</td>
</tr>
<tr>
<td>Gerald Friedman</td>
<td>Manuel Pastor</td>
<td>Thomas E. Weisskopf</td>
</tr>
<tr>
<td>James K. Galbraith</td>
<td>Jim Peach</td>
<td>John Willoughby</td>
</tr>
<tr>
<td>Teresa Ghilarducci</td>
<td>Randall Reback</td>
<td>Edward Wolff</td>
</tr>
<tr>
<td>Richard J. Gilbert</td>
<td>James B. Rebiter</td>
<td>Anne Yeagle</td>
</tr>
<tr>
<td>Lonnie Golden</td>
<td>Donald Renner</td>
<td>Henry W. Zaretsky</td>
</tr>
<tr>
<td>Dan Goldhaber</td>
<td>Jaime Ros</td>
<td>Jim Zelenski</td>
</tr>
<tr>
<td>Neva Goodwin</td>
<td>Joshua L. Rosenbloom</td>
<td></td>
</tr>
</tbody>
</table>

As for sampling issues, we only want to say that, however representative the “sample” is of minimum-wage supporters, the investigation also has merit as a set of conversations. Even if only one person had responded to the questionnaire, we would be interested to know the thought of that person—not as a representative sample, but as “man thinking” on the issue, with a unique body of argument reflecting a unique
web of interpretation and judgment, including new angles provided in
responses to the open-ended questions. That is one reason why we made
an appendix that enables one to read the results by respondent.

Presentation of Results

Here we reproduce a question and then report the frequency and
range of responses, sometimes quoting individual responses for purposes of
illustration or special interest. In addition to this written report, one can
access from Appendix 1 a complete compilation or responses in three
forms: (1) a scroll-by-person; (2) a scroll-by-question; (3) an Excel file with
response data.

Labor Market Mechanisms that Make the Minimum Wage Desirable

Preceding Question 1 there were remarks that reminded the
respondent that the statement affirmed that raising the federal minimum
wage to $7.25 would bring net benefits to workers and to the overall
economy. The remarks then sought to distinguish two broad categories of
beneficial mechanisms, labor-market mechanisms and socio-political
mechanisms. The first three questions deal with labor-market mechanisms.

Q1: Please indicate your view of the following statement: An increase in the federal
minimum wage to $7.25 would generate net benefits for workers and the overall
economy through its effects on labor-market mechanisms.

A. [ ] I agree with that statement.
B. [ ] I disagree with that statement.

As expected, the vast majority of respondents—90—marked A,
agreement. Only five marked B (Gunn, F.S. Lee, Rosenbloom, Stewart,
and Waller).

The survey asks those who agreed to answer the next two questions:

Q2 (only for those who responded A, agree, above): Kindly identify the beneficial labor-
market mechanisms (it's OK to approve more than one):

---

9 We impute A (agreement) to William Ross, who marked neither but answered Q2 as
though he had marked Q1 with A.
A. [ ] Equalizing an imbalance in bargaining skills (i.e., bargaining experience, articulateness, confidence)
B. [ ] Inducing employers with monopsony power to increase employment by their firm.
C. [ ] Inducing a transfer from employers to (generally less well off) workers, albeit with possible small disemployment effects.
D. [ ] Coordinating the low-wage labor market by making it common knowledge that jobs pay at least $7.25.
E. [ ] Other, please specify:

The responses as regards A, B, C, and D can be sorted into the mutually exclusive combinations (the notation (E) denotes that the individual also wrote open-ended remarks).

A (5): Susan F. Feiner (E), Richard J. Gilbert, Jim Peach, Vivian Grace Valdmanis, Anne Yeagle (E)
A&B (5): L. Josh Bivens, Arindrajit Dube (E), James B. Rebitzer, Michael Sattinger (E), Jeffrey Waddoups (E)
AB&C (10): Dean Baker, Alan Blinder (E), Menzie Chinn (E), Fritz Efaw (E), James K. Galbraith (E), Thomas R. Michl (E), John R. Morris, Gregory M. Saltzman, Paul Swaim (E), Lane Vanderslice (E)
ABC&D (4): Charles R. Chittle, Paul N. Courant, Amitava Dutt (E), Reynold Nesiba (E)
AB&D (3): Jo Beth Mertens, Laurie Nisonoff (E), Lawrence Mishel (E)
A&C (13): Katie Baird, Jennifer Ball, David Barkin, Eli Berman, John Fitzgerald (E), Lonnie Golden, Mark R. Hopkins (E), Mark H. Maier, Kate McGovern (E), Joydeep Roy, A. Allan Schmid, Charles L. Weise (E), Edward Wolff
AC&D (15): Barbara Bergmann, Margaret Blair, Robert A. Blecker, Robert M. Feinberg (E), Gerald Friedman (E), Neva Goodwin, Julie A. Matthaei (E), Richard McIntyre, Donald Renner, Stephen J. Schmidt, Howard Stein, Christopher Udry, William Van Lear, Robert W. Wassmer, John Willoughby
A&D (2): Barry Bosworth, Manuel Pastor (E)
B (0)
B&C (3): Patrick Conway, Dan Goldhaber, Elaine McCrate (E)
BC&D (2): Marianne A. Ferber, Teresa Ghilarducci (E)
B&D (1): Frank Levy (E)
C (15): Joyce Burnette, Peter Dorman (E), Robert Haveman (E), Farida C. Khan (E), Kevin Lang, Sang-Hyop Lee, Andrew McLennan, Daniel
Luria (E), Joshua L. Rosenbloom,10 Eric A. Schutz (E), Janet Spitz (E), Mark Votruba (E), Bernard Wasow, Mark Weisbrot, Henry W. Zaretzky

C&D (9): Pascale Joassart, Richard Lotspeich, Randall Reback, Jaime Ros, William W. Ross, Jesse Rothstein, Bruce R. Scott (E), Timothy M. Smeeding, Thomas E. Weisskopf

D (1): Alan G. Isaac

E (only) (3): Karl E. Case, Catherine L. Mann, Jim Zelenski;

No Response (4): Christopher Gunn, Frederic S. Lee, Jeffrey Stewart, William Waller [they all marked B to Q1]; thus total individuals is 95.

Table 6: Frequencies of markings of specified labor-market mechanisms

<table>
<thead>
<tr>
<th>Labor-market mechanism</th>
<th>n</th>
<th>% of 193 A-D Marks</th>
<th>% of 231 A-E marks</th>
<th>% of 88 persons marking A-D</th>
<th>% of all 95 persons responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Equalizing an imbalance in bargaining skills (i.e., bargaining experience, articulateness, confidence)</td>
<td>57</td>
<td>30%</td>
<td>25%</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>B. Inducing employers with monopsony power to increase employment by their firm.</td>
<td>28</td>
<td>14%</td>
<td>12%</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>C. Inducing a transfer from employers to (generally less well off) workers, alceive with possible small disemployment effects.</td>
<td>71</td>
<td>37%</td>
<td>31%</td>
<td>81%</td>
<td>75%</td>
</tr>
<tr>
<td>D. Coordinating the low-wage labor market by making it common knowledge that jobs pay at least $7.25.</td>
<td>37</td>
<td>19%</td>
<td>16%</td>
<td>42%</td>
<td>39%</td>
</tr>
<tr>
<td>TOTALS (Also, there were 38 E write-ins)</td>
<td>193</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Though the most marked mechanism is a transfer to workers (C), it is perhaps surprising that it is not marked more universally. Maybe a reason is

---

10 Rosenbloom marked B to Q1, yet answered C to Q2; perhaps he would not count the induced transfer as a labor market mechanism.
that the option specifies that the transfer comes from employers. Karl E. Case commented: “There is a transfer from some households to low wage workers. It is unclear who bears the burden since there will be a general equilibrium change. It is not necessarily ‘employers’ who bear the burden” (a similar clarification is made by Andrew McLennan).

In addition to the specified mechanisms, option E invited “Others, please specify.” We count 35 individuals to have indicated other mechanisms. The other mechanisms were as follows:

- 20 individuals mentioned **productivity enhancements** by way of any of a number of mechanisms: higher worker effort (in particular, the expression “efficiency wages” is used by seven individuals), better production processes or innovation, more training and investment in human capital, less turnover, and wage compression/reduced wage dispersion. The 20 individuals counted here are Blinder, Chinn, Dorman, Dube, Efaw, Feinberg, Feiner, Fitzgerald, Friedman, Galbraith, Ghilarducci, Haveman, Hopkins, Khan, Luria, McCrate, Pastor, Schutz, Swain, and Waddoups.

- **Balance of power/bargaining power** is mentioned by Galbraith, Levy, Scott, Weise, and Zelenski.

- **Augmented workers’ buying power/aggregate demand/macroeconomic activity** is mentioned Dut, Mann, Schutz, and Spitz.

- No other labor-market mechanism was mentioned more than twice.

The next question asked:

**Q3 (again, only for those who responded A, agree, to Q1):** For each mechanism that you indicated belief in in the previous question, if it’s not too much trouble, kindly indicate one or two sources of information (e.g. publications) that you feel support that belief:

---

11 There were 38 individuals who wrote something in the E area, but for three (Case, Goodwin, and McLennan) we deem the remarks to be clarifications of their A-D responses only. Thus we say that 35 individuals indicated other mechanisms.
A. Recommended source on the bargaining-skills mechanism:

B. Recommended source on the monopsony mechanism:

C. Recommended source on induced-transfer mechanism:

D. Recommended source on the coordination mechanism:

E. Recommended source on other mechanisms specified:

More than half of the respondents graciously responded to this nudgy question. Here we list authorities mentioned by at least three respondents:

- **David Card** and/or **Alan Krueger** (several times also with **Lawrence Katz**): Cited by 29 individuals, almost entirely in connection with the monopsony mechanism (option B) and the smallness of disemployment (which is mentioned as part of the induced-transfer mechanism option C). Relevant works: Card 1992a, 1992b; Card, Katz and Krueger 1994; Card and Krueger 1994, 1995a, 1995b, 2000; Katz and Krueger 1992; Krueger 1995; Autor, Katz and Kearney 2004.12


- **John DiNardo, Nicole Fortin** and **Thomas Lemieux**: Cited by four individuals. Relevant work: DiNardo, Fortin and Lemieux 1996.


12 Our method for collecting “relevant works” of the listed authors was to include any work with the pertinent authors’ names listed in the very recent large work Neumark and Wascher 2006, and to supplement with any sources cited by the respondents.
No other source or authority is cited more than twice. Among the cited authors mentioned here, two—Lawrence Katz and John DiNardo—signed the EPI statement; neither responded to the questionnaire.

Socio-Political Mechanisms

The next two questions explored socio-political mechanisms:

**Q4:** Regardless of how you responded to the previous questions, please indicate your view of the following statement: An increase in the federal minimum wage to $7.25 would generate net benefits for workers and the overall economy through its effects on broad socio-political mechanisms, such as those involving the character of the polity.

A. [ ] I agree with that statement.
B. [ ] I disagree with that statement.

**Agree on socio-political mechanisms** (choice A), 74 individuals.

**Disagree on socio-political mechanisms** (choice B), 7 individuals.

NR and others responses: 14 individuals.13

The next question asked those who agreed to the previous question to explain the socio-political mechanisms at work:

**Q5:** If you agreed with the previous statement (in Q4), kindly tell us how you think about those socio-political mechanisms (a few words, or, you are welcome to elaborate and to cite recommended sources):

To this question, 66 respondents wrote in responses. The following 21 responses make a not unrepresentative sample of the socio-political mechanisms indicated. In this article, we have reformatted and corrected obvious typos.14

13 No response came from 6 individuals; five more (Bergmann, Berman, Blair, Mertens, Weise) also checked neither “agree” nor “disagree” but did write that they were uncertain about the meaning of the question or their answer to it; two (Galbraith and Sattinger) also checked neither “agree” nor “disagree” but wrote remarks that more or less affirmed socio-political mechanisms; and one (McLennan) checked both “agree” and “disagree” and wrote a clarification of his response.

14 The appended scrolls contain original responses without corrections.
Alan Blinder: I would not put large weight on this, but I think that to some extent attitudes and mores matter. Regardless of Pareto efficiency, we do not allow indentured servitude or child labor. Similarly, a $7.25 minimum wage would state that society deems it wrong to pay less.

Peter Dorman: Since Tocqueville (at least) there is a well-established argument that greater equality of income and respect is associated with better democratic performance. This is a near-consensus position in political theory.

Arindrajit Dube: Increased income (and reduced inequality) has broad effects throughout society and polity; this includes (but is not limited to) increased self worth, increased ability to use added time to spend with kids, attend community college, etc., from an income effect.

Amitava Dutt: Reducing poverty, reducing inequality. Creating a culture where people realize that some basic needs of people should be satisfied.

Robert M. Feinberg: I'm not sure if this is exactly what is meant here, but I would see notions of fairness playing a role.

Neva Goodwin: many market mechanisms are affected by common expectations and habits. There are periods and circumstances when employers feel relatively more, and relatively less, responsibility for the overall wellbeing of their employees. Attitudes which Alfred Marshall referred to as “chivalry” can rise above what is legally required, but if legal requirements sink down, cultural attitudes are apt to sink also. And if laws require more humane wages, the cultural expectations and habits will be supported to rise to a more humane level.

Robert Haveman: 1) giving low wage workers a stake in their firms and jobs 2) giving low wage workers a feeling that they are less marginalized than they now feel.

Catherine L. Mann: The electorate recognizes the widening distribution of income, especially as evidenced by CEO pay and Wall Street salaries and bonuses. The legislative drive to raise the minimum wage is less about the economic impact, which in fact is likely to be very small, and more as a signal of the electorate’s concerns with the growing disparity in economic outcomes.

Kate McGovern: Public policy measures that decrease economic inequality are good for health of the civil society and the democracy. And, as a
general principle, society should encourage work and the dignity of work: no one who works should be poor.

**John R. Morris:** Economic justice for low income people.

**Jesse Rothstein:** I believe that a great deal of bargaining happens within parameters that are determined, in part, by societal expectations. Government policy has some role in determining those expectations.

**Paul Swaim:** Given the very high value placed on self-sufficiency in the US, I think it is important that adults working full time can earn enough to make a substantial contribution to supporting a decent living standard and take pride in their status as workers. Put differently, people playing by the rules should not feel like total losers (or be considered as such by their fellow citizens). The minimum wage can probably make a modest contribution to approaching this objective.

**William Van Lear:** Suggests a society committed to fairness and recognizes that power has a role in determining outcomes.

**Mark Votruba:** Vast disparities in wealth and income stability of democratic capitalism, as suggested by Alan Greenspan. I would add that our sense of community is undermined, which in turn undermines the social norms towards “appropriate” social behaviors, especially by those at the bottom.

**Jeffrey Waddoups:** Reducing wage inequality will increase the quality of democratic institutions.

**Bernard Wasow:** A low cost demonstration of concern for low wage workers that causes little damage. Elicits a buy-in by low wage workers to the polity.

**Robert W. Wassmer:** A good public policy analysis requires the balancing of both efficiency and equity considerations. Though the efficiency effects of a minimum wage are not entirely certain, I believe most Americans consider it "fair" that the minimum amount paid to an American to work in a country as affluent as ours should not be entirely left to a market determination. Though I am certain that there is disagreement as to what level this minimum should be set at.

**Mark Weisbrot:** the US has suffered a massive upward redistribution of income over the past 30 years, with the median wage increasing about 9 percent while productivity has increased over 80 percent. This has created a
much more unequal, class-stratified society and spills over into all sorts of regressive, ugly politics. Krugman has written about this if you need more.

**Edward Wolff:** In the political economy of the US, labor has lost a considerable amount of social and political power vis-à-vis business. Raising the minimum wage is one, albeit small, measure to help labor vis-à-vis business.

**Henry W. Zaretsky:** Improved living conditions for affected workers and their families. Less likely to become dependent on public programs such as welfare and Medicaid. More incentive to seek work. More stake in the system. More independence.

**Jim Zelenski:** Helps develop and support a broad middle class which in turn supports political and social stability as well as household self-sufficiency.

### Possible Negative Economic Consequences

The next section of the questionnaire was called “POSSIBLE NEGATIVE ECONOMIC CONSEQUENCES OF INCREASING THE MINIMUM WAGE TO $7.25” and consisted of just one question:

**Q6:** Virtually every policy action has at least some “winners” and some “losers.” The following is a list of six possible negative consequences of the proposed increase in the minimum wage. Please mark each of these with one of the following three symbols:

- **s** = significant economic drawback
- **m** = minor economic drawback
- **n** = not a substantive consequence (that is, the claim is false)

**A.** Because they cannot legally compete by lowering their price below $7.25, some individuals will not get employed (or will work fewer hours), regrettable because they miss out on income or work experience.

**B.** Because they cannot legally compete by lowering their price below $7.25, some individuals who do work will do so under otherwise less favorable conditions (such as fewer perks, less recognition or consideration, less training or instruction, harder work, etc.).

**C.** Because of the increase to $7.25, some workers will face a flatter time-profile of wage increases.
D. [ ] Because of the increase to $7.25, some workers will work illegally.
E. [ ] Because of the increase to $7.25, employers will enjoy less producer surplus.
F. [ ] Because of the increase to $7.25 and higher costs of production, consumer well-being will decline (because of higher prices, lower quality, fewer options).

Table 7: Possible drawbacks: “significant,” “moderate,” “not”

<table>
<thead>
<tr>
<th>Possible negative consequence</th>
<th>Importance of possible drawback</th>
<th>sig</th>
<th>mod</th>
<th>not</th>
<th>NR</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Because they cannot legally compete by lowering their price below $7.25, some individuals will not get employed (or will work fewer hours), regrettable because they miss out on income or work experience.</td>
<td>10 54 24 (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>B. Because they cannot legally compete by lowering their price below $7.25, some individuals who do work will do so under otherwise less favorable conditions (such as fewer perks, less recognition or consideration, less training or instruction, harder work, etc.).</td>
<td>1 39 47 (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.5</td>
</tr>
<tr>
<td>C. Because of the increase to $7.25, some workers will face a flatter time-profile of wage increases.</td>
<td>1 37 43 (14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>D. Because of the increase to $7.25, some workers will work illegally.</td>
<td>4 51 32 (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>E. Because of the increase to $7.25, employers will enjoy less producer surplus.</td>
<td>5 55 22 (13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>F. Because of the increase to $7.25 and higher costs of production, consumer well-being will decline (because of higher prices, lower quality, fewer options).</td>
<td>2 39 45 (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>TOTALS</td>
<td>23 275 213 (59)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
None of the suggested drawbacks are thought to be significant by many respondents. The three consequences given relatively more weight are disemployment, diminution of producer surplus, and inducement to working illegally (the formula for Score is 100(s+0.5m)/(s+m+n)). Meanwhile, the “not a substantive consequence (that is, the claim is false)” numbers range from 24 to 47.

Consequences E and F both pertain to the minimum wage as redistribution. Fifteen individuals (or 16 percent of respondents) said “not” both to “employers will enjoy less producer surplus” and to “consumer well-being will decline.” They evidently think that raising the minimum wage not only benefits low-skilled workers on the whole, but raises productivity to such an extent that neither employers nor consumers take a hit.

We recognize that there are subtleties and ambiguities in the listed consequences. James K. Galbraith noted: “In answering [n], here and below, I do not make the ridiculous claim that ‘no’ worker would suffer this consequence. Rather, [n] reflects my belief that the consequence is not ‘substantive’—that it would be going too far even to label it a ‘minor’ economic drawback.” Galbraith proceeded as we intended, and we think that most other respondents would also.

Another ambiguity over a “negative consequence” is, as Randall Reback and Jesse Rothstein pointed out (in response to Q9), that one might agree that it is a consequence without conceding that it is negative. For example, working illegally is better than not working at all. And some respondents interpreted a flatter time-profile of wage increases as “getting a raise earlier rather than later,” and hence a good thing (we had meant that, irrespective of the level, the slope would be lower, so that over, say, a two-year period, increased remuneration of those employed is less than one might figure by simply comparing the starting (minimum) wage with the would-have-been lower starting wage.). Also, five individuals indicated in written remarks to Q6 that it wasn’t a bad thing that employers obtain less producer surplus, and two individuals indicated that it wasn’t a bad thing that consumers well-being decline.

Receiving least weight was consequence B—the idea that when the minimum wage puts a floor on the wage dimension the other dimensions of

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15 The 15 individuals are: Chinn, Dutt, Galbraith, Joassart, F.S. Lee, S-H Lee, Matthaei, McIntyre, Nesiha, Spitz, Stein, Vaclamis, Wolff, Zaretsky, and Zelenski.
16 See Q6 comments by Blair, Ferber, Galbraith, Hopkins, and Lotspeich.
17 Ferber, Galbraith, Ghilarducci, Matthaei, and Willoughby.
18 Ghilarducci and Matthaei.
the employment relationship might get adjusted adversely for the minimum-wage earner. The other dimensions are sometimes called “non-wage job attributes.” Only one respondent saw this as a significant drawback of the policy, and 47 (a majority of those answering the question) marked it as “not.” Michael Sattinger (who marked it “moderate”) noted: “This is a major point in Finis Welch's book about the minimum wage,” presumably meaning Welch (1978). Incidentally, the point is also the central idea of McKenzie (1980), and more than a dozen empirical studies have explored the effects on non-wage job attributes, particularly formal training and insurance, with mixed findings; but it is rare that researchers obtain data on particularistic attributes like work demands, conditions, informal instruction, schedule flexibility, recognition, and respect.

The Meaning of “Liberty” and “Coercion”

The final section of the questionnaire took the minimum wage as a concrete setting to explore people’s thinking about the meaning of “liberty” and “coercion.” Here follows from the questionnaire a statement and two questions:

In one manner of speaking, liberty is freedom from political or legal restrictions on one’s property or freedom of association. Subscribers to this definition are apt to say that the minimum wage law is coercive because it (along with concomitant enforcement) threatens physical aggression against people for engaging in certain voluntary, consensual acts (namely, employing people at sub-minimum wages). (Notice that even subscribers to this definition of liberty recognize that it does not by itself carry a policy recommendation; values other than liberty exist and might conflict with it.)

Q7: Please indicate which of the following options best fits your view of this semantic issue:

A. [ ] I agree that that definition of liberty is the primary definition of liberty, and in that sense the minimum wage law is coercive.
B. [ ] I give some weight to that definition of liberty, but not primary weight; the minimum wage law is only coercive in a sense.
C. [ ] I give little to no weight to that definition of liberty; the minimum wage law is not coercive in any significant sense.
D. [ ] Other [please specify]:
Q8: If you responded either B or C to the previous question, please fill in A or B below:

A. [ ] To me, the primary meaning of liberty is [fill in]:
B. [ ] To me, in such political/legal discourse, “liberty” is not particularly meaningful at all.

Table 8: Adherence to the posited semantics of “liberty”

<table>
<thead>
<tr>
<th>Q7: Please indicate which of the following options best fits your view of this semantic issue:</th>
<th>n</th>
<th>% of 95</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. I agree that that definition of liberty is the primary definition of liberty, and in that sense the minimum wage law is coercive.</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>B. I give some weight to that definition of liberty, but not primary weight; the minimum wage law is only coercive in a sense.</td>
<td>18</td>
<td>19%</td>
</tr>
<tr>
<td>C. I give little to no weight to that definition of liberty; the minimum wage law is not coercive in any significant sense.</td>
<td>47</td>
<td>50%</td>
</tr>
<tr>
<td>D. Other (please specify):</td>
<td>23</td>
<td>24%</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>2%</td>
</tr>
</tbody>
</table>

Only five respondents assented to the primacy of the posited definition of liberty and that the minimum wage was coercive. Forty-seven (or 67 percent of those selecting A, B, or C) said they give little to no weight to that definition and denied that the minimum wage law is coercive in any significant sense. Furthermore, of the 23 individuals who selected “Other,” the vast majority wrote in comments which indicated strong reservations about that definition, if not outright rejection. Thus, 90-95 percent all minimum-wage supporters reject the primacy of the posited semantics, and about 65 percent reject any significant place for those semantics. We hazard to guess that a survey of minimum-wage opponents would yield a frequency ranking A > B > C, the reverse of what is found here. If so, disputants of the issue for the most part do not agree on what “liberty” and “coercion” mean. Since those conceptions relate directly to one’s understandings of “voluntary choice,” “the free market,” “intervention,” and other fundamental analytic distinctions and categories, the implication is that conceptual cleavages probably often separate how the two sides formulate and analyze the issue.
The Q7 (D) written responses are a lot like the Q8 (A) written responses, so let's first review the frequencies for Q8 before turning to a sample drawn from both sets of written responses. Q8 was intended only for those who rejected the primacy of the posited semantics by marking B or C in Q7, but, as it happens, Q8 was also joined by five respondents who marked D in Q7. Table 9 tabulates those marking A or B in Q8:

Table 9: “Liberty” according to those answering Q8

<table>
<thead>
<tr>
<th>Q8: If you responded either B or C to the previous question, please fill in A or B below:</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. To me, the primary meaning of liberty is [fill in]:</td>
<td>40</td>
</tr>
<tr>
<td>B. To me, in such political/legal discourse, “liberty” is not particularly meaningful at all.</td>
<td>22</td>
</tr>
</tbody>
</table>

The 62 individuals marking A or B in Q8 would be among those who had rejected the primacy of the posited definition of liberty. Twenty-two or 35 percent marked that in such political/legal discourse “liberty” is not particularly meaningful at all. Those marking A to Q8 wrote in their idea of the primary meaning of liberty. One can read the full set of responses in the appended scrolls. Here, we provide samples of the written responses from Q7 (D) and Q8 (A). We think that rejecting “negative liberty” (the posited semantics) tends to go with affirming “positive liberty.” To get some scheme into the exhibit of responses, we first provide a sample of written comments critical of negative liberty, and then a sample supportive of positive liberty.

The following comments are critical of or at odds with negative liberty.

**Barbara Bergmann** (Q7): I believe violating the min wage law is a civil offense, and so does not threaten physical aggression.

**Alan Blinder** (Q7): None of those words quite fit me. My view is that, yes, the minimum wage is somewhat coercive—as is all regulation. But I don't see the right to pay super-low wages as one of the important freedoms.

**Farida C. Khan** (Q7): Liberty for a person (in this context) is the right to work with dignity and respect. It is not an employer's right to reduce labor to indignity and pay any wage they like—that is an exercise of violence rather than an exercise of liberty.
Gregory M. Saltzman (Q7): Your use of the words "threatens physical aggression" to describe the minimum wage law is inflammatory because it seeks to evoke a very negative emotional response. You also provide a false characterization of minimum wage laws. Some employers may dislike being required to pay a higher wage rate than they prefer to pay, but such a requirement is in no way "physical aggression."

Michael Sattinger (Q7): I think the definitions of property rights (and rights in exchanges) are essential for markets and liberty. Property rights inevitably benefit some and harm others, so the coercion referred to would be inevitable. Not raising the minimum wage would also be coercive according to the definition of liberty proposed above.

Allan Schmid (Q7): "Freedom for the pike is death for the minnow." I. Berlin.

Jeffrey Stewart (Q7): I hardly think that because workers are forced to work in order to live that they "choose" to work for minimum wages. Your definition of coercion is not the same as the dictionary definition. [¶] You are defining liberty of the right of property owners to do what they wish with their property. I do not subscribe to this definition of liberty. For me it has more to do with free speech and freedom of association and other civil liberties.

Bernard Wasow (Q7): all laws and regulation restricts liberty. The alternative is worse.

Barry Bosworth (Q8): in the context of the minimum wage discussion, liberty is not primary in the sense government is taking only a small action to restrain the coercive power of some employers.

William Waller (Q8): Liberty is freedom from political or legal restrictions on one's property or freedom of association as long as this behavior involves no involvement or impact on any nonconsenting third party. [¶] Once social, cultural, or political institutions are involved in supporting, facilitating, or creating an environment for this behavior, then it is legitimate, indeed required, that a larger notion of the public interest be considered in the behavior. [¶] Since no legal employer/employee relation of which I am aware exists that does not involve currency, use of the postal
service, use of roads, payment of taxes, etc., the definition of liberty is not in my view encumbered by this question.

As for affirmations of positive liberties of one kind or another, there were a great many. Here we reproduce all that are fairly brief. Omissions of parts of the written comments are indicated by an ellipse (…).

Peter Dorman (Q7): The "negative liberty" of unregulated markets must be weighed against "positive liberty" aspects of regulation on a case-by-case basis. The threats to positive liberty at the bottom end of the labor market are so severe that they weigh more heavily.

Susan F. Feiner (Q7): Hunger is far more coercive than the minimum wage ... especially for children, they are not the ones making the choices. Have you ever had to sit and listen to children crying for want of food?

Pascale Joassart (Q7): Liberty and freedom imply that people are able to make choices. This requires having the ability to make these choices. Workers with low income are unable to escape poverty and provide people in their household with real options for education, and other important aspects of life. In that way, laws that attempt to improve the standard of living of the working poor represent an increase in liberty.

Kevin Lang (Q7): This is far too complex an issue to reduce to sound-bites, and I will not attempt an answer that is even remotely complete. Were I to attempt to define liberty, the concept would have to include something related to the opportunity to fulfill one's potential and would have to recognize that different aspects of liberty may be contradictory. The liberty of a child not to be hungry may be in conflict with my liberty to spend my money as I see fit.

Julie A. Matthaei (Q7): how about the freedom to work and live from that work -- i.e. a living wage?

Lawrence Mishel (Q7): Your definition is a ‘freedom from’ definition. I believe there’s a ‘freedom to do XXX’ dimension to freedom. So, if there’s no coercion low-wage workers are ‘free’ to go hungry!
L. Josh Bivens (Q8): Liberty is having a wide range of options as to how to live and work, subject to the constraint that my liberty doesn't unduly impinge on others’ choices.

Menzie Chinn (Q8): [To me, the primary meaning of liberty is] freedom from government regulation, freedom from government surveillance, freedom from repression from private sector actors, freedom from extreme want such as starvation and poverty.

Gerald Friedman (Q8): [To me, the primary meaning of liberty is] opportunity to take part in society and to pursue happiness.

Teresa Ghilarducci (Q8): [To me, the primary meaning of liberty] Is the ability to pursue one’s goals to the best of one's ability.

Lonnie Golden (Q8): [To me, the primary meaning of liberty is] the freedom from constraint that inhibits an individual to realize one’s own potential and pursue happiness. This includes freedom from want, poverty, deprivation.

Neva Goodwin (Q8): [To me, the primary meaning of liberty is] best described by Amartya Sen,19 who stresses liberty to do and to be one’s best potential self, as being at least as important as the negative liberties of non-coercion.

Farida C. Khan (Q8): In this context, a person would have liberty if he/she can live in a community where people respect each other’s work and are not subjected to witnessing excess form of consumption of others that some people must clean up after.

Richard Lotspeich (Q8): [To me, the primary meaning of liberty is] Freedom to make choices, but choices that are not made in an environment of material deprivation. Poverty can be considered coercive as well.

Catherine L. Mann (Q8): [To me, the primary meaning of liberty is] Freedom of expression.

19 Many of Sen’s works have this theme, but perhaps Goodwin means Development as Freedom (Sen 1999).
Elaine McCrate (Q8): [To me, the primary meaning of liberty is] liberty to live at a minimum level of income and dignity, without which meaningful choice is lacking.

Andrew McLennan (Q8): I would attach greater importance to effective liberty, namely people in the end being free to do what they actually want to do, than to the procedural liberty described in the definition above…

Reynold F. Nesiba (Q8): Liberty is the freedom to act in the world. People with insufficient income are not free, they are enslaved.

Jim Peach (Q8): Economic liberty must also mean access to basic human needs including food, health care, and educational opportunity. Access to these needs is problematic at very low wages. The result is a threat to the liberty of all of us.

Eric A. Schutz (Q8): …the whole point is “positive” freedom, i.e., freedom “to do”, to fulfill human potentialities, thus any inclination to protect freedoms of private property must, at the least, be balanced against the restrictions such an inclination may impose upon other freedoms that require for their fulfillment a deeper association among people than mere market exchange or other similarly alienated interaction -- for example, freedom to pursue intellectual and spiritual growth in social and cultural contexts that are stifled by disallowing public financing because of concerns about taxing private property to pay for them (e.g., recreation, the arts & culture, education, science) …

Janet Spitz (Q8): [To me, the primary meaning of liberty is] the freedom to engage in choices according to my preferences within the legal confines of the society and civilization in which I choose to live. (ie, I don’t get to murder someone if I choose)

Howard Stein (Q8): freedom from government is the overwhelming focus of economists in this country. I put a higher value on freedom from hunger and poverty

Vivian Grace Valdmanis (Q8): [To me, the primary meaning of liberty is] freedom from want and coercion from the powerful
William Van Lear (Q8): [To me, the primary meaning of liberty is] Partly having to do with the above definition, but also social programs and income supports add to freedom by providing more resources and equalizing power relations in society.

Charles L. Weise (Q8): Not sure; it’s not merely freedom of contract, but ability to enter into market exchange on an equal footing with competitors/partners.

Thomas E. Weisskopf (Q8): [To me, the primary meaning of liberty is] the opportunity for individuals to make the most of their potential.

John Willoughby (Q8): [To me, the primary meaning of liberty is] an ability to fulfill potential. This follows the views of Amartya Sen. Higher incomes for low income workers helps these workers and their families to have more successful lives.

Edward Wolff (Q8): [To me, the primary meaning of liberty is] Having a sufficiently high standard of living to be able to pursue activities that people want to engage in.

Anne Yeagle (Q8): [To me, the primary meaning of liberty is] the freedom to pursue happiness which has nothing to do with excess, such as high producer surplus, and a minimum wage law enforces the pursuit of liberty because it provides the means to supply the most basic necessities which are a requirement for happiness.

Correspondence from Henry Aaron, Ronald Ehrenberg, and Robert Solow

The EPI signatory list began with 15 “Leading Economists.” Three of those completed the questionnaire—Alan Blinder (Princeton University), Frank Levy (Massachusetts Institute of Technology), and Lawrence Mishel (Economic Policy Institute). Three others also responded with correspondence, without completing the questionnaire, Henry Aaron (Brookings Institution), Ronald Ehrenberg (Cornell University), and Robert Solow (Massachusetts Institute of Technology). We asked to reproduce the correspondence, and each gave permission. The correspondence is available as a linked document from Appendix 2.
General Feedback

The final question (Q9) invited “general remarks about the minimum wage issue or this questionnaire,” and 49 individuals wrote comments, included in the appended scrolls. Eighteen individuals wrote comments that were critical of the questionnaire, many unhappy that formulations biased the discussion or excluded alternative angles; namely, Jennifer Ball, Robert A. Blecker, Menzie Chinn, Patrick Conway, Peter Dorman, Arindrajit Dube, James K. Galbraith, Mark R. Hopkins, Fredric S. Lee, Catherine L. Mann, Andrew McLennan, Manuel Pastor, Randall Reback, Jesse Rothstein, Gregory M. Saltzman, Eric A. Schutz, William Waller, and Charles L. Weise.

Many of the 47 comments harkened back to previous questions. For example, at least five remarked on the “liberty” questions (Lonnie Golden, Manuel Pastor, James B. Rebitzer, Eric A. Schutz, and William Waller). Others elaborated on their reasoning for supporting the petition, often about empirical claims and evidence.

When respondents returned a completed questionnaire to us, they often made remarks at the head, not within the questionnaire itself. As a matter of scheme and punctilio, we have not included these cover messages. But several were friendly. Moreover, several of the general remarks entered at Q9 were friendly:

**Robert A. Blecker:** This is a very interesting survey, and I'm happy to participate…

**Teresa Ghilarducci:** I hope you put this survey to nonpolemical use. Thank you for being open and honest about your biases.

**Frank Levy:** Interesting project.

**Julie A. Matthaei:** thank you for your interest in my thoughts -- I wish there were more substantive debate on these issues in our profession.

**Manuel Pastor:** …Good luck with your article.

**Randall Reback:** I like the idea of this questionnaire…
Michael Sattinger: I agree that the minimum wage is a complicated issue, and that it is useful to examine the reasons why people support or oppose it. I look forward to seeing the results.

Mark Votruba: I’m looking forward to the results. You’ve probably already thought of this — it would be great to see similar responses for economists who oppose the min wage…

William Waller: …Good luck with your project.

Appendix 1: Compendia of complete responses

A. Scroll-by-person: Link
B. Scroll-by-question: Link
C. Excel data sheet: Link

Appendix 2: The following three items are correspondence from individuals who declined but wrote epistles expressing some of their thoughts on the matter. The criterion for inclusion in this appendix is that the individual was among the 15 economists listed by EPI as leading economists signing the petition. These epistles are included with permission of the respective author.

A. Correspondence from Henry Aaron: Link
B. Correspondence from Ronald Ehrenberg: Link
C. Correspondence from Robert Solow: Link

REFERENCES


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### ABOUT THE AUTHORS

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