Crisis and Development: Ratchets in Reverse

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ABSTRACT

Is crisis good for development? Nobody knows for sure. Most economic theory would answer no. The elementary theory of opportunity costs shows that diverting resources to deal with a crisis is at best an economic wash. One opportunity cost of World War II was intensive growth, which is crucial for long-run development. More sophisticated analysis shows that government expands during a crisis and contracts afterward. But the contraction still leaves government larger and more powerful than if no crisis had occurred. The general effect is to slow growth. This is Robert Higgs' ratchet effect. The concept is rooted in institutional stickiness. It seems to hold through time and place. This paper's contribution is a reverse ratchet effect. Some crises can cause institutional, and developmental, improvements. The influx of women in the workplace during World War II – and their not leaving afterward – is an example. Crisis does not have black-or-white effects on development. It turns out to be a more subtle creature, neither all good nor all bad. GDP data indicate that crisis may have a neutral effect on development, though this seems unlikely. Further research may uncover the precise balance.

1. Introduction

Is crisis good for development? Nobody knows for sure. This is painful for many economists to admit.[1] Most economic theory decisively answers no; this compounds the problem. This paper accepts these theories. It introduces another that complicates matters. A reverse ratchet effect posits that crisis can help development in some ways. The net effect of crisis is unknown. But it is neither purely positive nor purely negative.

Before proceeding further, we need to quickly define our terms: a crisis is an episode of instability, or a threat to existing institutions. World War II was a crisis. So was the Great Depression that preceded it. Natural disasters are another form of crisis. Economic development is an increase over time of both the quantity and quality of material wealth.

Contrary to many economists, a popular belief is that crisis can be good for economic growth. Most high school textbooks say that World War II is what pulled the United States out of the Depression. Prentice Hall's *Economics: Principles in Action* says, "Not until the United States entered into World War II did the country completely recover from the Great Depression. The sudden surge in government defense spending boosted real GDP well above pre-depression levels."[2] West Educational Publishing's *World History: The Human Odyssey* contains a review exercise that reads, "Make a list and explain the ways that the United States benefitted (sic) economically from World War II."[3]

[1] See Coyne and Boettke (2006) for the virtues of humility for economists.
[2] O'Sullivan and Sheffrin (2003), p. 315.
[3] Spielvogel (1998), p. 939.

Much of this paper will argue against the standard textbook treatment. Theoretically, crisis can have some positive effects. But World War II was not the fiscal stimulus package that textbooks portray. Its effects on consumer spending were negative (Cullen and Fishback, 2006). This paper is organized as follows: Section 2 will use the concept of opportunity costs to show why, logically, World War II could not have caused growth. The point holds for other forms of crisis, such as a natural disaster. Of course, there is more to the story than opportunity costs. Economics 101 is not everything.

Section 3 will introduce Robert Higgs' ratchet effect. Government grows and assumes more powers during a crisis. When normality returns, it gives up those powers. But not all of them. The government remains more powerful than if no crisis had occurred. The result is often a net negative for economic development.

Section 4 notes that, looking at history, the picture appears to be mixed.

Section 5 introduces the notion of a reverse ratchet effect. Some institutional changes that happen during a crisis are positive, such as women entering the workplace during World War II. If these institutional improvements are retained post-crisis, ratchet-style, they can boost development. Both types of ratchet effects depend on the notion of institutional stickiness.

Section 5 concludes.

2. Opportunity Costs, War, and Growth

A popular high school textbook of 20th century U.S. history tells students that "the demand for war supplies pulled the American economy out of the Great Depression and made it more productive and prosperous."[4] There is a problem with this interpretation of events. War cannot create; it can only destroy.

When a nation goes to war, it creates jobs for soldiers and munitions workers. Look at footage of a parade of thousands of soldiers and their equipment – which had to manufactured by somebody. It is easy to understand why so many people believe that war creates jobs. Surely it is good for economic growth. The evidence is right there in front of their eyes. It is seen. But every Jeep made for war is a civilian Chevrolet *not* made. Every military uniform is a business suit that was never made. That is unseen.

If Bastiat (1850) is to be believed, war does not create *new* jobs. It creates *different* jobs. Those different jobs are not free. They come at the expense of other jobs. Nor do war jobs create new wealth. They are paid for by transferring existing wealth from taxpayers to war workers. Every dollar spent on the war was a dollar that could have been spent on something else. More fundamentally, the very purpose of war is to destroy life and property, not to create it.

For World War II to have even been an economic wash, there would have to have been zero transaction costs for the transfer from taxpayer to munitions worker. There would have to have been no casualties, and no property damage. All soldiers in the war would be presumed

[4] Nash (2002), p. 515.

to have consumed and produced nothing for the duration of the war, had they stayed home. Even by the standards of economic models, these assumptions are unrealistic.[5]

Bastiat wryly notes, "If, all things considered, there is a *national profit* in increasing the size of the army, why not call the whole male population of the country to the colors?"[6]

An excellent point. But GDP actually *grew* during World War II. There were three years of double-digit growth, peaking in 1942 at 18.5%. Peace came in 1945; the economy celebrated with a 1.1% decline. 1946 saw an 11.0% contraction as millions of soldiers came home and looked for more peaceful work. Whither Bastiat?

The post-war contraction is easy enough to explain. Military demobilization meant that millions of newly unemployed young men trained as soldiers now had to train to be something else. When an economy has to shift gears rapidly, it takes time to make the adjustment.

The reasons behind the war growth are more subtle. War growth was largely *extensive* growth – more workers making stuff. Nothing wrong with that. But those goods were not for consumers. That is not the kind of wealth that counts as *development*. It bears reminding that during that period of extended double-digit growth, government was rationing food and other necessities. Products intended to improve life – not end it – were in short supply. Both types of goods count the same toward GDP. GDP misstates true wealth.

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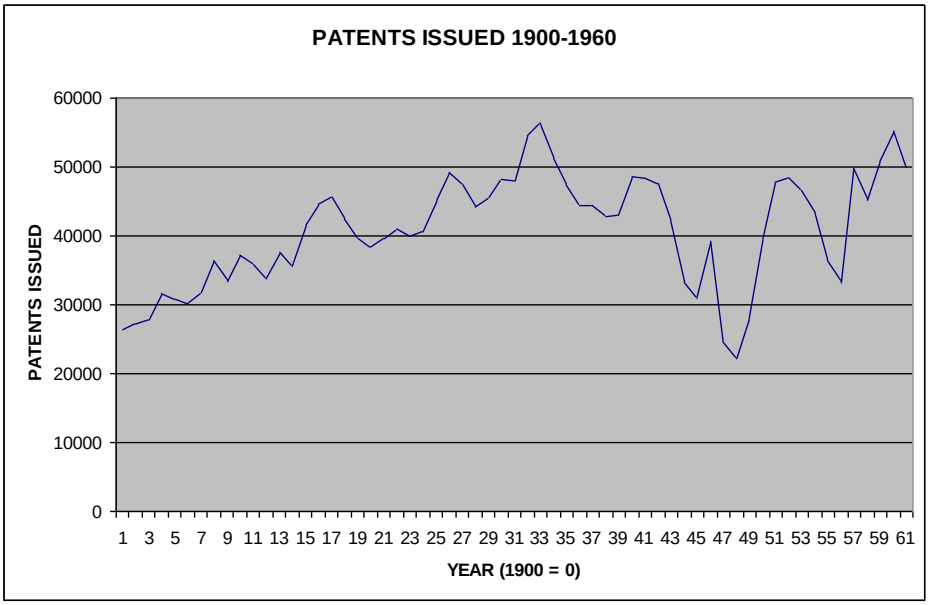
[5] Rajan (2004) contains further grousing about the traditional "complete markets" model's shortcomings.
[6] Bastiat (1850), p. 7. Emphasis in the original.

Long-run development requires *intensive* growth. That occurs when workers do more with less. In a way, intensive growth is productivity growth. That requires technological innovation. Since the United States issues patents for new inventions, the number of annual patent issues can serve as a rough proxy for the rate of innovation. This is an imperfect measure. It does not control for the quality or usefulness of inventions. But as a rough measure of the rate of innovation, it will do.

Figure 1



Source: United States Patent and Trademark Office.

To create Figure 1 above, I added together utility and design patent issues for each year from 1900 to 1960. Patents take a long time to process and approve. To compensate, I am estimating a two-year lag between an event and any effect it might have on patent issues.

Accounting for the lag, annual patent issues from 1941-1947 (the war was 1939-1945) declined from 47,594 to 22,241. That is a drop of 53.3%. More than half. Correlation does not necessarily mean causation. But there are also decreases exactly where World War I and

the Korean War lie, accounting for the lag. There is another drop during the Great Depression.

It appears that innovation is one of the opportunity costs of crisis. World War II took a massive amount of resources to fight and win. Those resources had to be diverted from other uses, such as cultivating intensive growth. Bastiat comes off rather well. It appears that crisis harms development.

3. Higgs and the Ratchet Effect

During a crisis, governments often assume new powers. Powers they would never dream of wielding in more peaceful times. If a natural disaster is coming, a government might forcefully evacuate people from the area under duress. If there are supply shortages during the aftermath, price controls are common (if ineffective). During war, rights such as habeas corpus or the right to jury trial may be taken away. Enemies and spies must be dealt with post-haste.

Governments typically give up these powers when better times return – but not all of them. Income tax withholding is one example of the ratchet effect in action. Instituted as an emergency measure in 1942 to help pay for the war effort, it was never repealed. Withholding is more efficient for tax collectors than year-after quarterly payments. It is also less noticeable to the taxpayer; the money never reaches their wallet, and so is never directly taken out of it. Income tax receipts steadily went up, and the war was won.

But withholding was never repealed. It turned out to be quite useful. Not only did it yield higher revenues, but taxpayers felt less pain. They were no longer sending checks directly to the IRS every quarter. Over time, withholding rates were set so that many taxpayers were systematically overpaying. The perverse result is that many taxpayers actually look forward to April 15, when they receive a surprise windfall. Many taxpayers do not realize it is actually their own money being given back to them. Indirectly, this was part of the price of World War II.

Milton Friedman played a small role in implementing withholding. He often said it was one of his few regrets in life. "It never occurred to me at the time that I was helping to develop machinery that would make possible a government that I would come to criticize severely as too large, too intrusive, too destructive of freedom. Yet, that was precisely what I was doing."[7]

The practice quickly spread to other countries. Withholding was one factor enabling the spectacular growth of government worldwide in the post-war era. Crews and Young (2008) add that the U.S. has reached the point where "Regulatory compliance costs of $1.16 trillion are now higher than Canada's entire 2004 GDP ($1.017 trillion)." It takes a powerful, well-funded government to impose that kind of burden on an economy. Sometimes a small ratchet can have a large negative effect. Again, it appears that crisis does not beget development.

[7] Friedman and Friedman (1998), 123.

What causes the ratchet effect? It is a manifestation of institutional stickiness. Economic institutions have a powerful inertia; they "stick" to the same place. This is one reason why some government powers borne of crisis outlive the crisis. Once a change is made, it can stick.

Radical changes are actually quite slippery. These rarely become an accepted part of the institutional order. Change must be slow and incremental in order to stick. That is why the individual ratchets we observe are small, such as tax withholding. It is also why most emergency powers are relinquished. Radical wartime measures such as food rationing and internment of Japanese-Americans were quickly abandoned.

The ratchet effect and the properties of institutional stickiness seem to hold over both time and space. Consider the case of Julius Caesar, two millennia and thousands of miles from 20th century America[8]. A similar pattern held. Caesar was victor in the worst crisis that any society can face – civil war. To secure his power, he radically remolded 500-year old Roman institutions. He rejected the title of king – anathema to most Romans – only in name, and even then just barely. Romans were aghast at the threat Caesar posed to Republican traditions. He was assassinated after only five years in power.

Some of Caesar's changes remained in place, such as the Julian calendar. The seventh month, July, still bears his name. But these were minor changes, like tax withholding. Twenty three stab wounds ensured that Caesar's grander ambitions would not succeed.[9]

[8] This story is told with far greater skill in Meier (1982), and especially in Durant (1944). The economic interpretation is my own.
[9] Figure from Suetonius (2004 [A.D. 117]), p. 42, whose sensationalism is to be taken with a grain of salt.

His adopted son Octavian, better known to history as Augustus, succeeded where Caesar failed.[10] He was the victor of his own crisis, a civil war between himself and Mark Antony. Several more crises arose during his reign. The secret of Augustus' success was that he knew the meaning of gradualism. He accumulated power steadily. But always slowly, only as fast as the ratchet effect and institutional stickiness would allow. Just to be safe, he was always careful to drape his reforms in old-style Republican rhetoric. He consulted the Senate whenever possible, often merely to be polite. He was never known as king or emperor. Augustus' official title was "princeps," an old Roman title dating back centuries. It means something like "first among equals." This was far more palatable to the Roman mind than the hated title of *rex*, or king, which was banished in 509 B.C. along with King Tarquin the Proud.

Augustus also had time on his side. By the time he assumed full *autoritas* in 27 B.C., an entire generation of Romans had grown used to the notion of one man having the powers of a king – though never the title, of course. When he died 41 years later, the principate was the only form of government most living Romans had ever known. To hamfistedly use a Greek word in a Roman example, enough time had passed for one-man rule to enter into the Empire's *metis*.[11] Institutions do not stick forever.

[10] Everitt (2006) is Augustus' best contemporary biography.
[11] *Metis* is any deeply and widely held social norm. *Metis* is what people actually believe in and act upon in their daily lives, as opposed to the laws on the books.

4. Ambiguity in the Ratchet Effect

Most examples of the ratchet effect describe power grabs that harm development. It is hard to find any other kind in the literature. The story of Augustus is one such example that deserves further study. Rome knew peace for nearly two centuries after Augustus. It reached its greatest heights of wealth and power under the principate that he created. Perhaps this is an example of a reverse ratchet effect – where crisis led to institutional improvement, and development. On the other hand, maybe not. That same principate made possible such abominations as Caligula, Nero, and Commodus. There is another example of a reverse ratchet effect, less remote from us, and far less ambiguous.

5. The Reverse Ratchet Effect

16 million American men fought in World War II, nearly an eighth of the 1941 population. With a significant part of the workforce fighting overseas, women had to go to work to fill the gaps. Rosie the Riveter was born. More than that, actually. She endured. Women continued to work after the war ended. This new institution was minor enough to stick, like income tax withholding. It ended up having effects just as significant. Gender roles were redefined in a way that continues to evolve more than sixty years later. At least half of the population welcomed the change.

Giving women the choice whether or not to work also had positive effects for development. Not all women choose to work; for some the cost is higher than the benefit. But this was never true for *all* women. Now women who preferred a career could have one. This

particular ratchet allowed women to pursue the kind of life that gave them the greatest benefit. They could pursue a career or stay home to raise the next generation. Whichever seemed better. The total effect is probably impossible to precisely quantify. It is certainly beyond the scope of this paper. But Rosie the Riveter's positive impact on development is denied only by cultural conservatives, for whom institutions are particularly sticky. Contra Bastiat, crisis is not a pure negative for development.

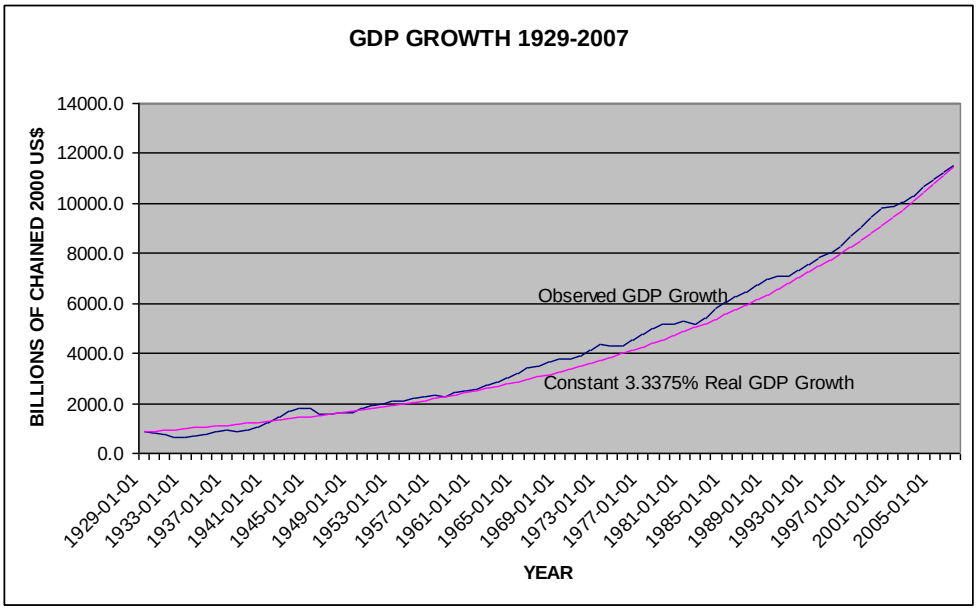
One more example. It is often argued that economic development in the Muslim world would benefit if its fairer half were similarly liberated. This is almost certainly true. But such a radical change in gender relations cannot change overnight; institutions are sticky. Well-intentioned activists and legislators can pass any number of laws. But they are no substitute for actual behavior, actual *metis*. If the Roman example describes a general pattern, real change takes a generation or more to occur. The West is still haggling over the finer points of its new gender order sixty years later. It probably always will. It could even be argued that a crisis on the scale of World War II is a necessary catalyst. Let us hope this is not true.

6. Conclusion

Bastiat's old lesson of opportunity costs rings true. Crisis destroys. But crisis cannot change all. Institutions are sticky. In the long run, they are what determine the level of development. Change can come only incrementally. Robert Higgs' ratchet effect makes clear the interaction between crisis and inertia. But Higgs and others focused only on ratchets with negative effects on development. Reverse ratchets also exist. They can accelerate development. The sudden influx – and long-run staying power – of women in the World

War II workplace is proof. Peace and stability are preferable to crisis, to be sure. But the effect of crisis is neither as dark as Higgs portrays it, nor so sunny as many textbooks would have students believe. As is so often the case, the true developmental effects of crisis lie not at either pole, but somewhere in between. Hopefully further research can determine a more precise latitude. Figure 2 can serve as a starting point for the debate.

Figure 2



Source: Federal Reserve Bank of St. Louis.

The period from 1929-2007 contains the Great Depression, World War II, wars in Korea, Vietnam, Afghanistan, and Iraq, plus the entire Cold War. Crisis after crisis. Yet even the biggest of those crises show up as little more than blips on the radar. The Great Depression saw 25% unemployment and a sea change in the role of government. It is barely distinguishable from an idealized line of constant 3.3375% real growth. 450,000 U.S. soldiers gave their lives in World War II. As far as GDP is concerned, that war may as well never have happened.

Such stability through crisis speaks to the strength of core institutions such as private property and an independent judiciary. At the same time, if the 20th century had been one of peace instead of crisis, would growth have been even higher? Higgs and many others believe so. Would the growth made possible by women's liberation have happened if Rosie the Riveter – a creature of crisis – hadn't paved the way? We have no way of knowing. Further research could shed some light on these important questions.

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