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Schumpeter vs. Keynes Redux: “Still Not Dead”*

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Abstract

Diamond (2009) compares the citation time series for Schumpeter and Keynes from 1956 to 2006. Citations to Schumpeter steadily increase throughout the period, whereas citations to Keynes begin to level off and then trend slightly downward beginning in the 1990s. As a result, citations to Schumpeter begin to outstrip those to Keynes. This paper replicates Diamond (2009) and extends the analysis to 2017, which incorporates citations since the onset of the Great Recession. The replication confirms the results in Diamond (2009). The analysis beyond 2006 shows citations to Schumpeter remain larger than to Keynes, but citations to Keynes undergo a resurgence. The paper argues the Great Recession helped renew interest in Keynes. Google Trends data for Schumpeter and Keynes are compared and provide evidence showing the heightened interest in Keynes during the Great Recession. For example, in the United States, the peak of Keynes’s search interest occurs in February 2009, five months after Lehman Brothers declared bankruptcy.

JEL Classification: B30, B20, B00

Keywords: Joseph Schumpeter, John Maynard Keynes, citations, Web of Science, Google Trends

*The paper we replicate is entitled “Schumpeter vs. Keynes: “In the Long Run Not All of Us Are Dead”,” hence our title.

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1 Introduction

With foundational contributions to the study of entrepreneurship, innovation, and creative destruction on the one hand and aggregate demand and the use of fiscal and monetary policy to manage crises on the other, the ideas of Joseph Schumpeter and John Maynard Keynes remain relevant to scholars and policy-makers today. But, which author is more influential, as, say, measured by annual citations? We wager most respondents to this question would guess Keynes and many, mostly policy-makers, would not even know of Schumpeter.¹ Yet Diamond (2009) shows citations to Schumpeter began to outstrip those to Keynes beginning in the 1990s.

The sample period in Diamond (2009) is 1956-2006, which does not cover the years of the Great Recession and its aftermath, years which saw many scholars and policy-makers reach into the past for answers to deal with contemporary problems. Indeed, one of the central policy debates during the Great Recession was austerity versus stimulus, or what the optimal level of government intervention should be in the face of crisis, a debate, in one sense, between the defenders and detractors of the ideas put forth in Keynes's *The General Theory of Employment, Interest, and Money*. Robert Skidelsky, a biographer of Keynes, for example, left nothing to the reader's imagination by entitling his salvo into the debate as *Keynes: The Return of the Master*, a book which includes the following statement on its cover: "Why, Sixty Years After His Death, John Maynard Keynes Is the Most Important Economic Thinker for America" (Skidelsky 2009).

In light of the Great Recession, we return to Diamond (2009)'s contribution and compare the citation time series of Schumpeter and Keynes from the Web of Science database. Our sample period covers the years 1956-2017, which includes more than a decade's worth of new data since the publication of Diamond (2009). Our analysis is as follows: First, we replicate Diamond (2009) and extend the analysis to 2017. Second, given possible citation inflation in recent years, we analyze the data in the form of ratios, which gives us a sharper comparison between the two authors and allows us to more cleanly compare the two time series. Third, we provide evidence from Google Trends data suggesting heightened interest in Keynes during the Great Recession.

¹Davis, Figgins, Hedengren, and Klein (2011) presents evidence from a survey of economists showing a similar preference for Keynes. When asked the question, "Are there any economic thinkers of the twentieth century and now deceased whom you regard with great respect, admiration, or reverence?", Keynes was the top choice amongst respondents, followed by Friedman, Samuelson, Hayek, and then Schumpeter as the fifth most popular choice.

Our analysis reveals a number of significant results. In our replication, all of our results for the period up to 2006 are broadly consistent with those in Diamond (2009), so no results from Diamond (2009) have been overturned. Extending the data to 2017 shows total annual citations to Schumpeter continue to outstrip those to Keynes. The main point of Diamond (2009) still stands, i.e. Schumpeter's influence, as measured by citations, has grown over time, even surpassing that of Keynes. However, whereas the citation time series for Keynes in Diamond (2009) shows a clear plateauing or possibly even a slight downward trend beginning in the mid 1980s, our updated series shows a clear reversal of fortune for Keynes. Total annual citations to Keynes have been increasing since the mid 2000s. The same patterns hold true when comparing the total annual citations of *Capitalism, Socialism and Democracy* and *The General Theory*. *Capitalism, Socialism and Democracy* continues to have more citations than *The General Theory*, as documented in Diamond (2009), but citations to *The General Theory* have undergone a resurgence, which was not present in the data in Diamond (2009). The proportion of Schumpeter's citations coming from *Capitalism, Socialism and Democracy* show an upward trend in Diamond (2009), but extending the data to 2017 now reveals a clear downward trend beginning in 2003. *Capitalism, Socialism and Democracy* is becoming less important as a source of Schumpeter's influence.

To complete the replication, we next turn to total annual citations in economics publications only and consider the same three cuts of the data. Here too we benefit from extending the time series to 2017, as the results differ in important ways from those in Diamond (2009)'s sample. In Diamond (2009)'s sample, total citations to Schumpeter and *Capitalism, Socialism and Democracy* are steadily increasing, whereas those to Keynes and *The General Theory* experience the same change in trend beginning in the mid 1980s. For economics publications only, however, total citations to Keynes and *The General Theory* do not simply level off but experience a clear and significant downward trend. As a result, by the end of Diamond (2009)'s sample, total citations to Schumpeter and Keynes and their two magna opera appear fairly even. Extending the data to 2017 shows the resurgence in citations to Keynes and *The General Theory* holds for economics publications as well. Total citations to Schumpeter and Keynes are fairly even, with Schumpeter having a slight edge, whereas citations to *The General Theory* clearly dominate those to *Capitalism, Socialism and Democracy*, which is consistent with our interpretation that

the Great Recession created a renewed interest in the ideas in *The General Theory*. The proportion of Schumpeter's citations coming from *Capitalism, Socialism and Democracy* exhibits similar patterns as in the data for all publications. *Capitalism, Socialism and Democracy* is becoming less important for Schumpeter's citations.

Moving beyond our replication exercise and, thus, beyond the analysis presented in Diamond (2009), we calculate four citation ratios: the Schumpeter-to-Keynes and *Capitalism, Socialism and Democracy*-to-*The General Theory* ratios for all publication and for publications in economics only. We interpret the trends in the ratios through the lens of the history of economic thought. For example, the Schumpeter-to-Keynes citation ratio for economics publications only shows four distinct periods: 1) an initial period of slight dominance by Keynes, 1956-1972, 2) a period of heightened dominance by Keynes, 1973-1988, 3) a period of growth in the ratio, 1989-2005, during which Schumpeter becomes more influential relative to Keynes, and 4) a period in which the growth of the ratio comes to a halt but Schumpeter remains slightly dominant. We argue these trends match well with what is happening in the field of economics, 1956-2017. In the first period, Keynesian economics is the dominant paradigm in macroeconomics. The second period coincides with the stagflation of the 1970s and the emergence of freshwater macroeconomics as an alternative paradigm. Keynes is being cited heavily as researchers wrestle with his ideas and formulate new ideas. At the same time, this is setting the stage for the plateauing of Keynes's citations already mentioned in the underlying citation data. In the third period, with Keynes's citations reaching a plateau, the Schumpeter-to-Keynes ratio begins to grow, as Schumpeter's citations are steadily increasing. This period coincides with a renewed interest in Schumpeter's work, as the literature on growth theory explodes. At the same time, this period coincides with the onset of the Great Moderation, which means business cycle fluctuations and how to manage them become less of a concern, keeping down the citations to Keynes. This, of course, ends with the Great Recession, and there is a renewed interest in Keynes in the fourth period. Another advantage to using citation ratios is their simplicity, and we think they provide a useful empirical tool for historians of economic thought interested in comparative analysis of different economists.

Our last set of results provides empirical evidence from a different source, Google Trends, in support of our hypothesis that the resurgence in citations to Keynes was in part fueled by

the Great Recession and the renewed interest in Keynesian thought on the part of academics and policy-makers. Search interest in Schumpeter and Keynes has been trending downward in both the U.S. and the world as a whole over the period 2004-2017. The Great Recession is correlated with a temporary spike in search interest for both economists in the U.S. but only for Keynes worldwide. Comparing search interest in Schumpeter and Keynes directly shows Keynes is searched more heavily than Schumpeter both in the U.S. and the world and especially during the Great Recession. We think these results show the enduring value of the history of economic thought and its relevance for current policy debates. Schumpeter and Keynes are still not dead. Or, as Keynes wrote, “Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist” (Keynes 1936, p.383).

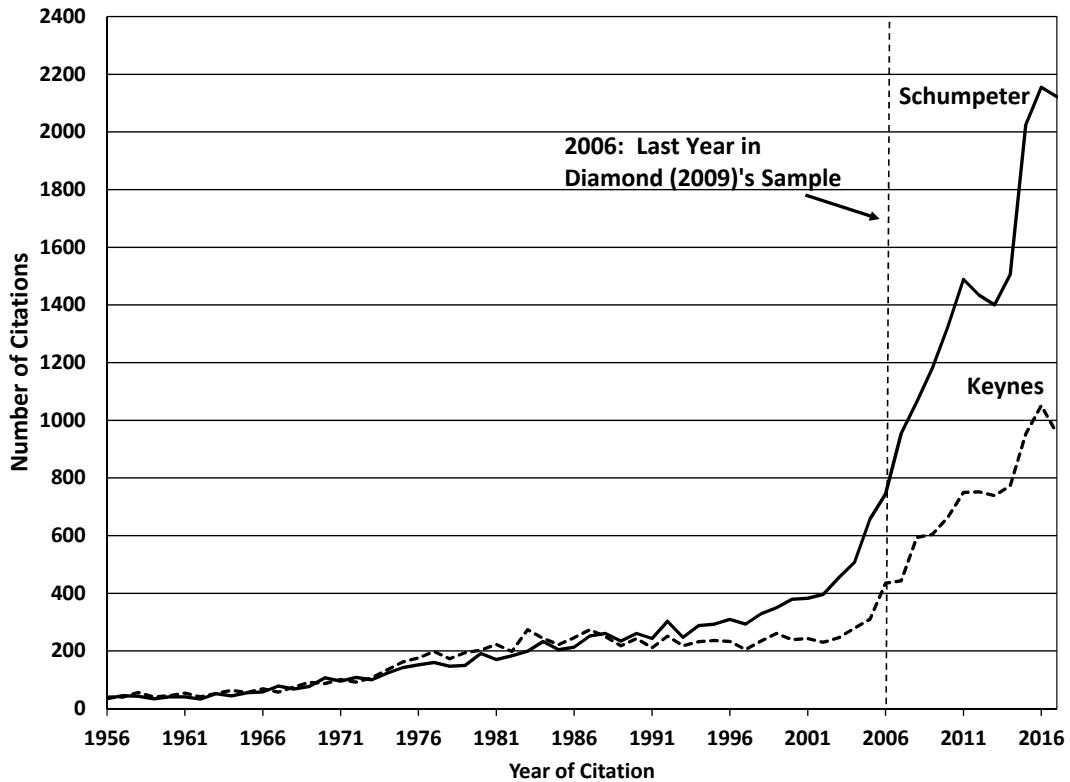
2 Replicating and Extending Diamond (2009)

The developers of the Web of Science citation data continually update the data with new sources, so replication exercises will rarely yield quantitatively exact results compared to the originals. However, it seems reasonable to expect the original qualitative results to hold up under replication. This is precisely what we find when replicating the results in Diamond (2009): all of our qualitatively results over the period corresponding with the sample in Diamond (2009), 1956-2006, are the same, but some of the magnitudes differ. Of course, we also extend Diamond (2009)’s original sample to include the Great Recession and as many years afterwards as currently available. Our sample covers the years 1956-2017.

In order to make as clear a comparison as possible, we present our results in the same order as those in Diamond (2009).² Figure 1 shows the total citations per year for both Schumpeter and Keynes. The vertical dotted line at 2006 marks the end of Diamond (2009)’s sample period. We keep the vertical dotted line in the other figures but choose to suppress the label to reduce clutter. The results in figure 1 closely match those in Diamond (2009) but for one exception. Total citations to Schumpeter and Keynes remain close to one another from 1956-72, Keynes outstrips Schumpeter from 1973-1986, and Schumpeter begins to dramatically outpace Keynes

²This means our figures 1-6 exactly correspond to figures 1-6 in Diamond (2009). We have even tried to format our figures in a similar fashion to make the visual comparison as straightforward as possible for the reader.

Figure 1: Citations Per Year to Schumpeter and Keynes (All Publications)

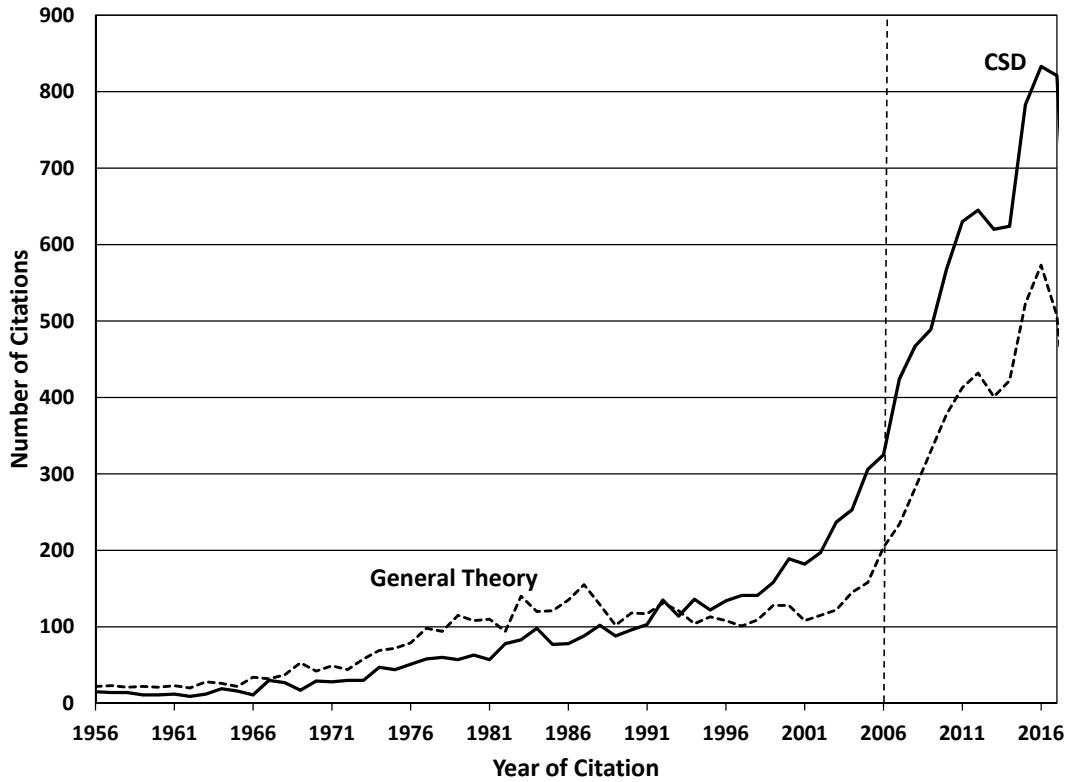


beginning in 1988. These qualitatively features in the data match those in Diamond (2009) with slight variation in the timing of the movements. The only noticeable difference between our results and those in Diamond (2009) comes towards the very end of Diamond (2009)'s sample period. The magnitudes for both Schumpeter and Keynes become a lot larger. For example, in 2006, Diamond (2009) shows Schumpeter and Keynes with approximately 400 and 200 total citations, respectively, whereas our results are nearly double: 744 for Schumpeter, and 435 for Keynes.

Three main results emerge in the post-Diamond (2009) period. First, Schumpeter continues to be cited more heavily than Keynes. This means Diamond (2009)'s central point, that Schumpeter's influence remains strong long after his death, continues to hold true as measured by total citations.³ Second, citations to Keynes have undergone a resurgence after a long period of

³Diamond (2007) finds corroborating evidence for this point using a different approach. An analysis of best-selling books using Amazon.com's "Search Inside the Book" feature shows references to Schumpeter increasing over time, albeit over a short sample period of 2004-2007. The majority of these references are to creative destruction.

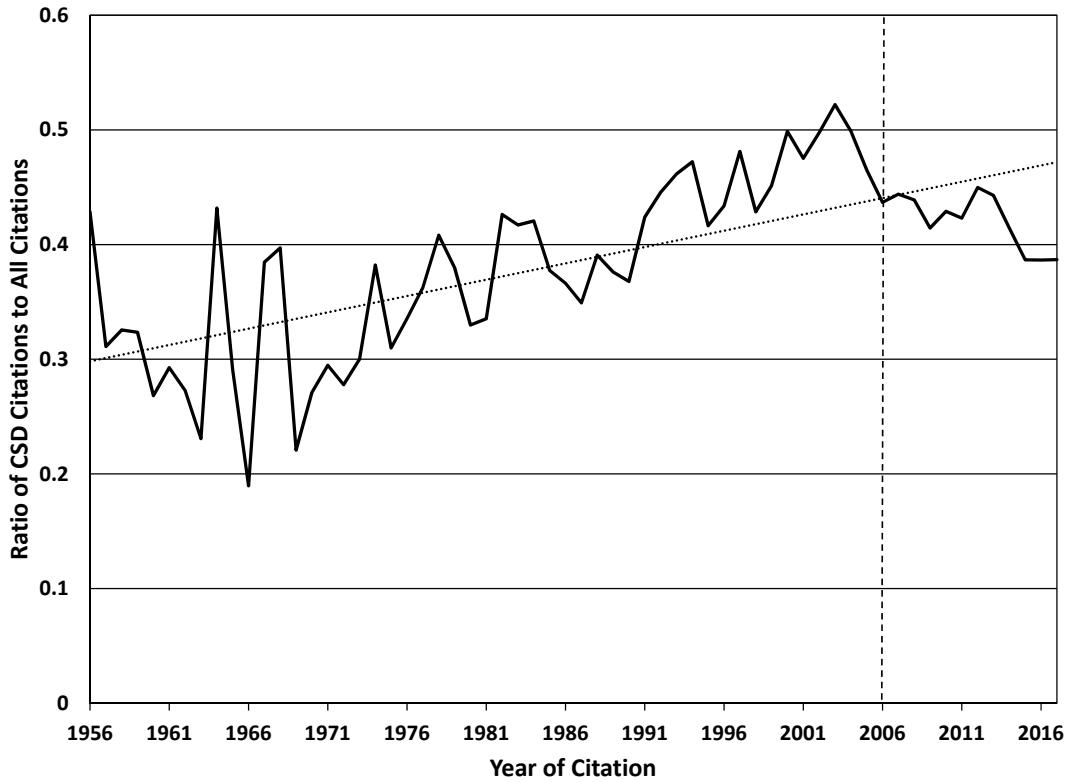
Figure 2: Citations Per Year to *Capitalism, Socialism and Democracy* and *The General Theory* (All Publications)



stagnation roughly corresponding with the mid 1980s until the mid 2000s. Although the results in Diamond (2009) show citations to Keynes increasing in 2005 and 2006, there is no way to discern a change in the trend. Indeed, quite the opposite appears to be the case. A striking subplot emerging from Diamond (2009)'s results is the plateau or, even, slight decline in the time series for citations to Keynes. This evidence likely points towards the rise of freshwater macroeconomics and the declining influence of Keynes among economists, macroeconomists in particular, during Diamond (2009)'s sample period. In terms of total citations, our results show Keynes's influence is again on the rise after 2006, which we think is most likely attributable to the interest in Keynesian thought in response to the Great Recession. Third, the magnitude of the increase in citations since 2006 appears quite large, which may suggest citation inflation. We explore the two issues of the resurgence of Keynes and possible citation inflation in more detail in section 3. Before doing so, we complete the rest of the replication results.

The qualitative results again follow Diamond (2009) when we look at citations to Schum-

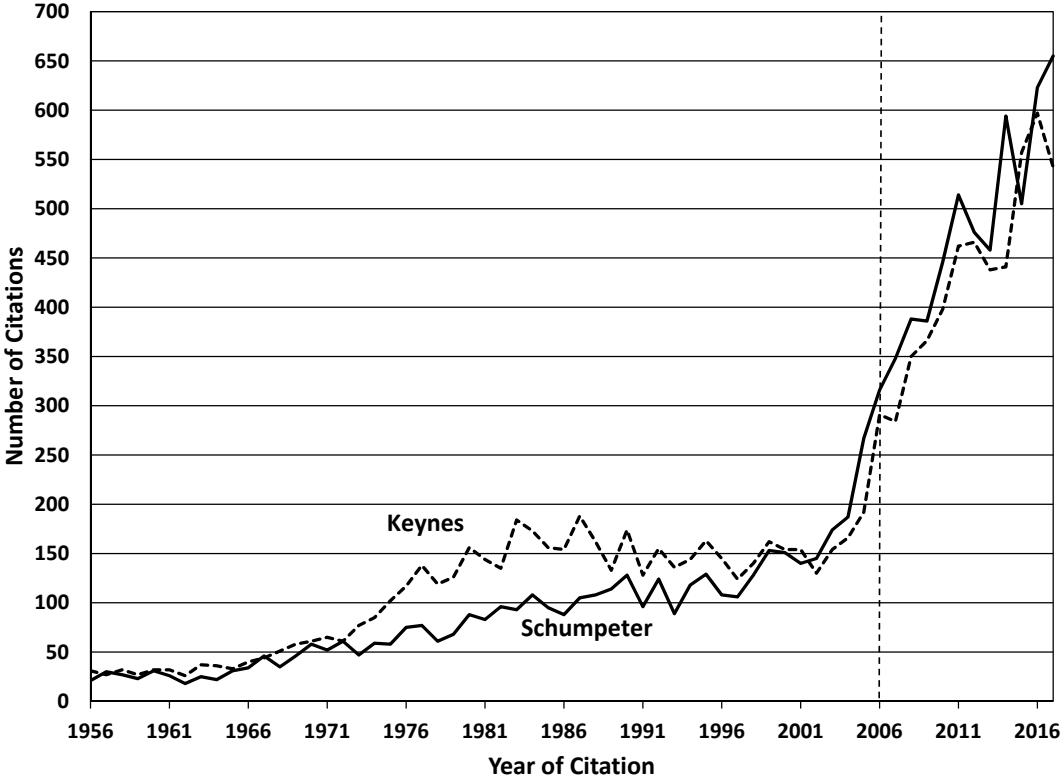
Figure 3: Proportion of All of Schumpeter’s Citations that Are Citations to *Capitalism, Socialism and Democracy* (All Publications)



peter’s and Keynes’s most prominent works, *Capitalism, Socialism and Democracy* and *The General Theory*. In figure 2, *The General Theory* has strictly more citations per year than *Capitalism, Socialism and Democracy* until 1992 when the advantage switches to *Capitalism, Socialism and Democracy*. Citations to *Capitalism, Socialism and Democracy* continue to outstrip those to *The General Theory* throughout the rest of the period. Just like citations to Keynes undergo a resurgence, though, citations to *The General Theory* also pick up again when extending the sample to 2017. Although the difference in citations between *Capitalism, Socialism and Democracy* and *The General Theory* remains, the average annual growth rates in citations are nearly identical after 2006 at 9.3% and 9.2% for *Capitalism, Socialism and Democracy* and *The General Theory*, respectively. Both books are still gaining prominence.

In the next figure, we look specifically at the composition of Schumpeter’s citations. The proportion of all Schumpeter’s citations that are to *Capitalism, Socialism and Democracy* is plotted over the standard time horizon. In figure 3, the data match those in Diamond (2009)

Figure 4: Citations Per Year to Schumpeter and Keynes (Economics Publications Only)

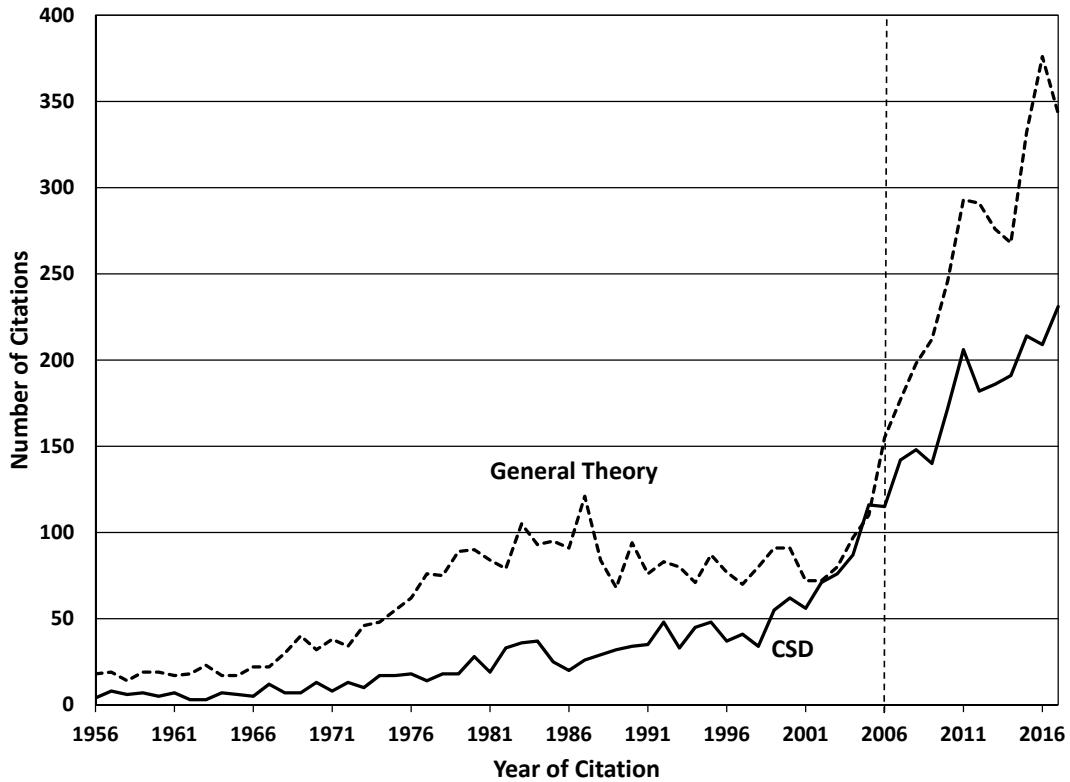


for the 1956-2006 time period. The data seem to follow a general upward linear trend until 2003 when the proportion reaches a maximum of 0.52. From 2003 to the end of our sample, however, a downward trend emerges, which is a noticeable difference from the results in Diamond (2009). *Capitalism, Socialism and Democracy* is becoming a less important source of citations for Schumpeter relative to his other works.

Now we focus specifically on the popularity of the two authors within economics publications only. We filter the citations to include just the citations in publications that fall under the Economics and Business Finance categories defined by the Web of Science database. Note, this method differs slightly from Diamond (2009), but this is due to the fact that the Web of Science database has changed and been updated. Nevertheless, the results we obtain for the 1956-2006 period qualitatively align with those in Diamond (2009), and, thus, we argue the data are capturing the same effect.

Figure 4 parallels figure 1 by showing total citations per year for Schumpeter and Keynes but for economics publications only. The data replicate the qualitative features in Diamond

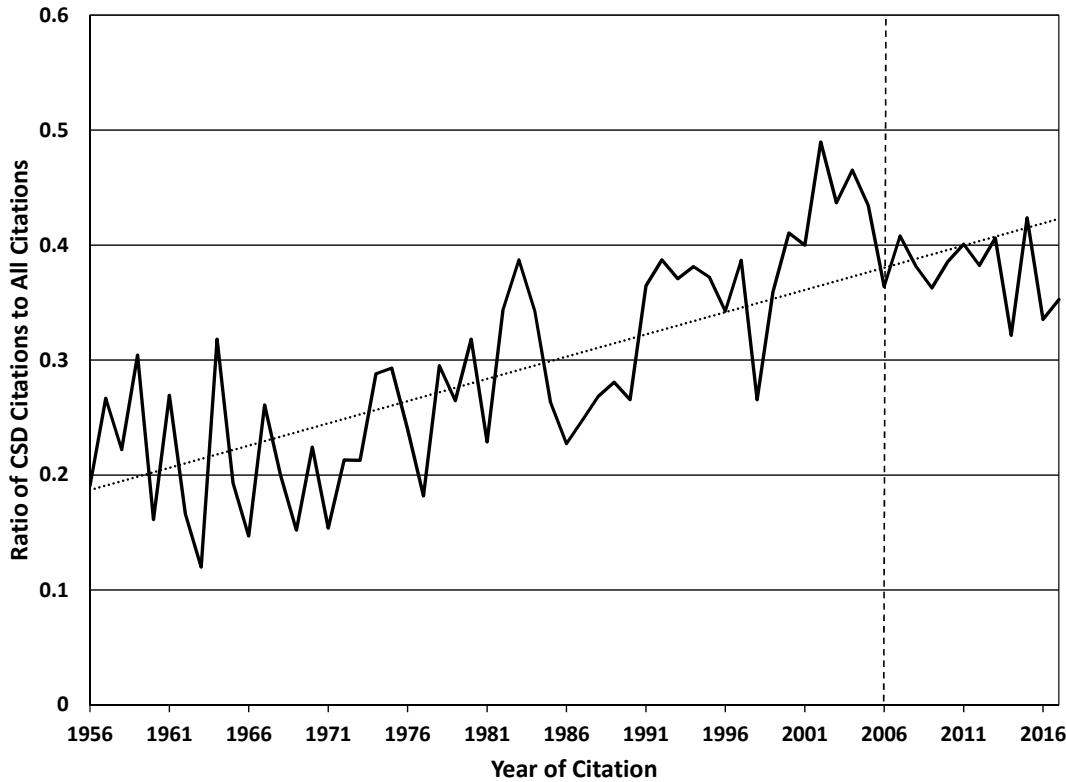
Figure 5: Citations Per Year to *Capitalism, Socialism and Democracy* and *The General Theory* (Economics Publications Only)



(2009). For 1956-2006, citations to Keynes dominate those to Schumpeter with Schumpeter only reaching parity towards the end of the period. This differs from figure 1 where Schumpeter dominates Keynes starting in 1988 and continues to do so for the rest of the sample. In economics publications only, it is not until 2002 that Schumpeter has more citations than Keynes at 145 and 130, respectively. Afterwards, the citations to the two authors move in tandem with Schumpeter maintaining a slight lead. The contrast between figure 1 and figure 4 tells us that Schumpeter's rise in citations is driven by publications that do not fall into the Economics or Business Finance categories of the Web of Science database. When it comes to each author's effect on the current field of economics, the authors appear to be influencing the discipline in a similar magnitude. The resurgence in citations to Keynes is also evident after extending the data to 2017.

Figure 5 compares the citations per year for *Capitalism, Socialism and Democracy* and *The General Theory* for economics publications only. The results until 2006 again closely match those in Diamond (2009), with *Capitalism, Socialism and Democracy* trending upwards and

Figure 6: Proportion of All of Schumpeter's Citations that Are Citations to *Capitalism, Socialism and Democracy* (Economics Publications Only)



only catching up to *The General Theory* at the very end of the Diamond (2009)'s sample period. The upward trend in citations to *Capitalism, Socialism and Democracy* continues after 2006. Whereas Diamond (2009) concludes *The General Theory* is trending moderately downwards in economics publications, the updated sample clearly shows a resurgence in citations to *The General Theory*. Although citations to Schumpeter and Keynes in economics publications are similar in magnitude after 2006 (figure 4), figure 5 shows *The General Theory* being cited much more frequently than *Capitalism, Socialism and Democracy*. This result is consistent with our interpretation that the Great Recession played a role in the resurgence in citations to Keynes. *The General Theory* and the ideas and policies it spawned create a framework for responding to crises in the short run, whereas the focus in terms of the economics in *Capitalism, Socialism and Democracy* is much more on the long run, e.g. growth and innovation.

Our last replication result looks at the ratio of *Capitalism, Socialism and Democracy* citations to all of Schumpeter's citations in economics publications only. The patterns in figure 6 match

those for all publications in figure 3. As a proportion of all of Schumpeter’s citations, citations to *Capitalism, Socialism and Democracy* match the upward trend seen in Diamond (2009), but that trend seems to have reversed in the post-Diamond (2009) period. Although citations to *Capitalism, Socialism and Democracy* continue to increase (figure 5), citations to other works by Schumpeter are increasing at a faster rate in economics only publications.

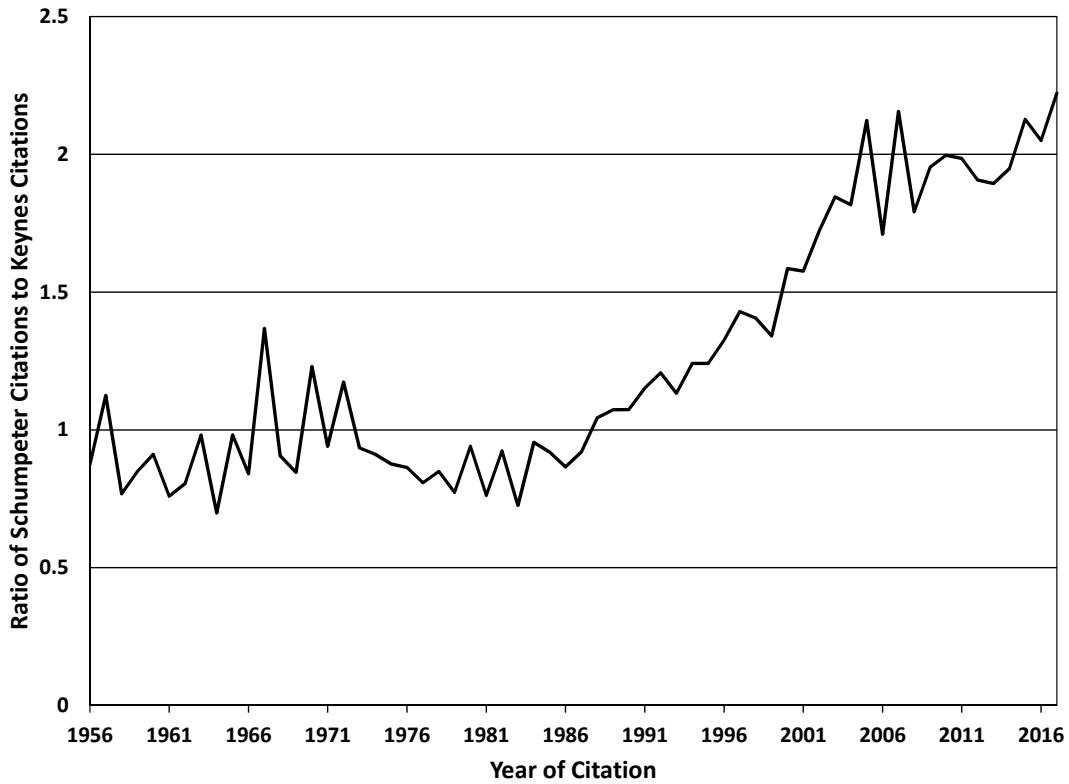
3 Schumpeter vs. Keynes Beyond Diamond (2009)

In this section, we extend our analysis beyond just replicating and updating the data in Diamond (2009) by providing some additional analysis to more thoroughly interpret the results in both papers. As mentioned in section 2, two issues emerging from our results are 1) the magnitude of the increase in citations relative to the citations reported in Diamond (2009) and 2) the resurgence of citations to Keynes in the post-Diamond (2009) period, which we now address in sections 3.1 and 3.2.

3.1 Schumpeter vs. Keynes Citation Ratios

Citations are not a perfect measure of intellectual influence. One potential problem discussed by Diamond (2009) is so-called citation inflation, the idea that average citations per paper trend upwards over time. Citation inflation is one possible reason why the magnitude of the increase in citations after 2006 appears so large in our figures. For example, for figure 1 showing the total citations per year for Schumpeter and Keynes, the average annual growth rate in total citations is 7.5% for Schumpeter and 6% for Keynes, 1957-2006, and 11% for both Schumpeter and Keynes, 2006-2017. Of course, another possibility is that both Schumpeter and Keynes are becoming more influential over time. However, the Google Trends data, which is a different metric of influence, presented in section 3.2 suggest otherwise. In either case, one practical problem for the reader after including data after 2006 is that clearly identifying the variation across years and comparing Schumpeter to Keynes becomes difficult. The figures in Diamond (2009), for example, are much clearer and simpler to interpret on a year by year basis because the magnitude in the change of the time series across the sample period is much smaller. Since there is no reason to suspect citation inflation would affect Schumpeter and Keynes differently,

Figure 7: Schumpeter-to-Keynes Citation Ratio (All Publications)

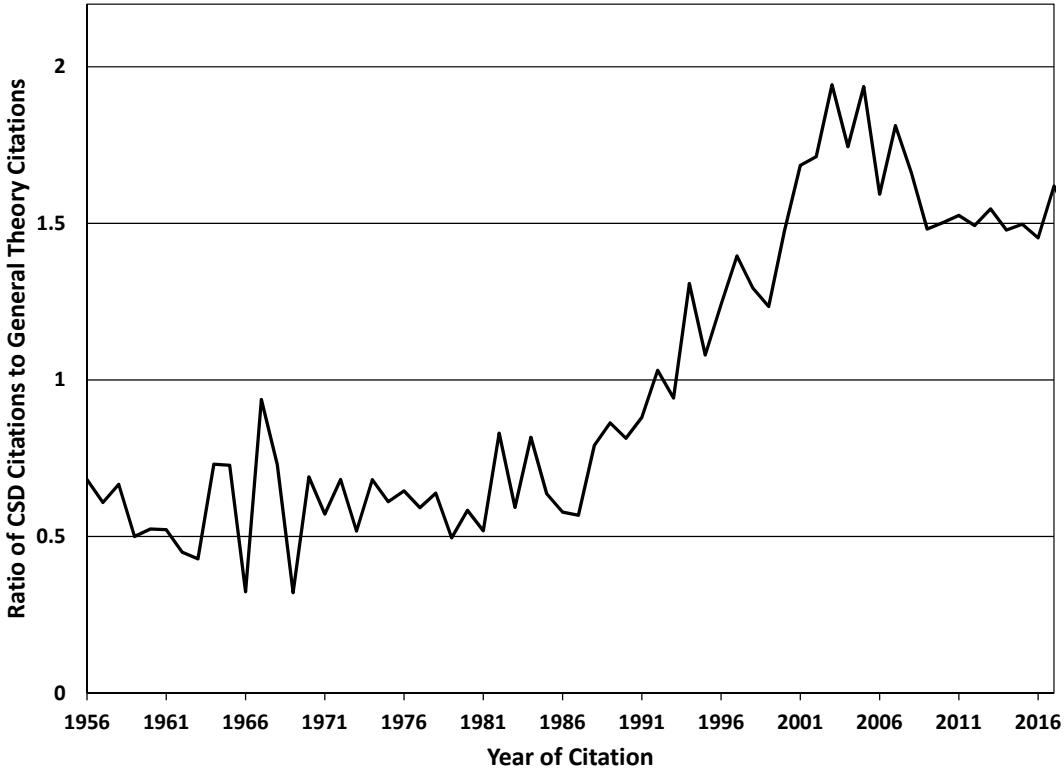


looking at the ratio of citations controls for the possibility of inflation and makes for a clean comparison of the two economists relative to one another.

Figures 7 - 10 present the citation ratios comparing Schumpeter and Keynes: figure 7 shows the Schumpeter-to-Keynes citation ratio for all publications, figure 8 shows the *Capitalism, Socialism and Democracy*-to-*The General Theory* citation ratio for all publications, figure 9 shows the Schumpeter-to-Keynes citation ratio for economics publications only, and figure 10 shows the *Capitalism, Socialism and Democracy*-to-*The General Theory* citation ratio for economics publications only.

In terms of citations in all publications, the Schumpeter-to-Keynes ratio averages 0.91 from 1956 to 1987. After 1988, the ratio permanently passes 1 and steadily grows thereafter. The ratio does not dip significantly below this upward trend even after the onset of the Great Recession, and Schumpeter is currently being cited twice as much as Keynes. Figure 8 shows both some similarities and differences for the case of the *Capitalism, Socialism and Democracy*-to-*The General Theory* citation ratio for all publications. Overall, the qualitative pattern looks similar

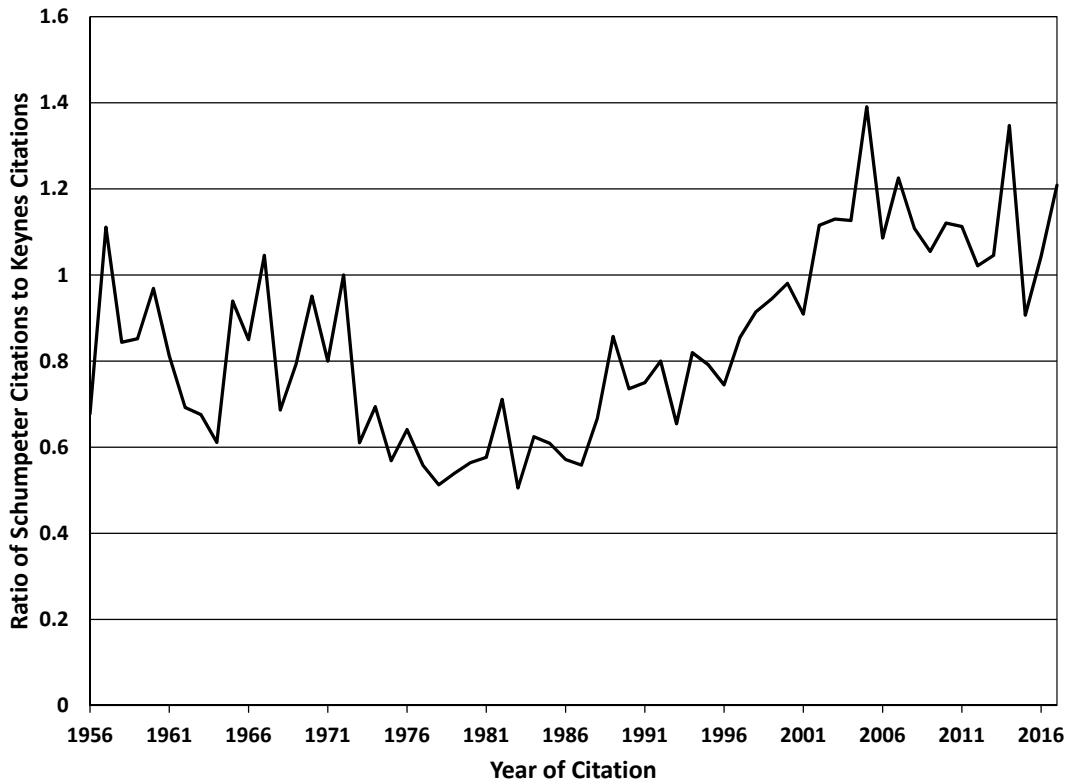
Figure 8: *Capitalism, Socialism and Democracy*-to-*The General Theory* Citation Ratio (All Publications)



to the Schumpeter-to-Keynes ratio with an initial period of *The General Theory* being cited more frequently followed by *Capitalism, Socialism and Democracy* being cited more frequently. The timing for when *Capitalism, Socialism and Democracy* surpasses *The General Theory* occurs later, 1994 compared to 1988. However, after the ratio passes 1, the upward trend clearly comes to a pronounced halt in the latter period, which is noticeably different compared to the Schumpeter-to-Keynes ratio. The quantities in figures 7 and 8 also differ. Comparing over the same period 1956 to 1987, the *Capitalism, Socialism and Democracy*-to-*The General Theory* citation ratio averages 0.61, which is considerably smaller than the 0.91 average for the Schumpeter-to-Keynes ratio. Whereas the Schumpeter-to-Keynes ratio exhibits a good amount of parity between the two authors in the first half of our sample, the same cannot be said when comparing each author's magnum opus.

The Schumpeter-to-Keynes ratio for economics publications only (figure 9) shows some major differences compared to all publications. For example, the ratio does not consistently exceed

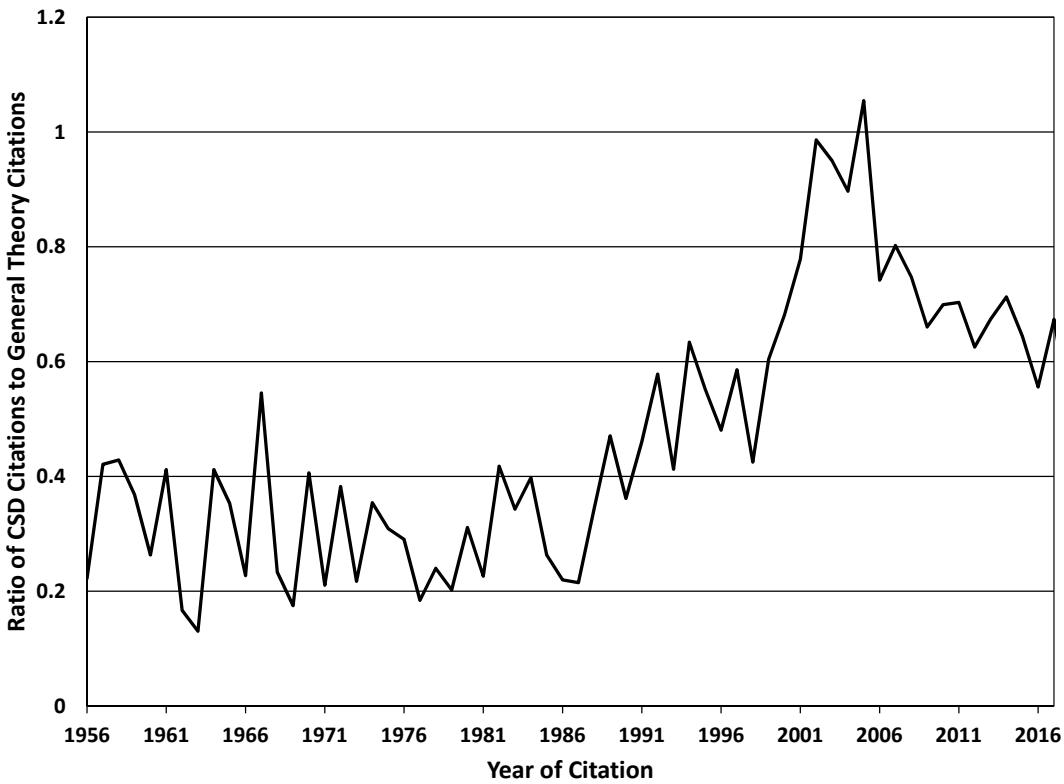
Figure 9: Schumpeter-to-Keynes Citation Ratio (Economics Publications Only)



1 until 2002, which shows Schumpeter's influence surpasses Keynes's much later in economics publications. There also now appears to be four qualitative moves in the series: 1) an initial period of slight dominance by Keynes, 1956-1972, when the ratio averages 0.84, 2) a period of heightened dominance by Keynes, 1973-1988, when the ratio averages 0.59, 3) a period of growth in the ratio, 1989-2005, during which Schumpeter becomes more influential relative to Keynes, and 4) a period in which the growth of the ratio comes to a halt, mirroring the period identified in figure 8, but Schumpeter remains slightly dominant (from 2006-2017, the ratio averages 1.11).

We think the following interpretation helps explain what might be driving the changes in the relative influence of the two economists across these four periods: In the first period, Keynesian economics is a reigning and fashionable paradigm, e.g. “We are all Keynesians now.” The second period coincides with the stagflation of the 1970s and the emergence of freshwater macroeconomics as an alternative paradigm to the Keynesian approach. Keynes is being cited heavily as researchers wrestle with his ideas and formulate new ideas. At the same time, this is setting the stage for the plateauing of Keynes's citations already mentioned in our discussion of

Figure 10: *Capitalism, Socialism and Democracy*-to-*The General Theory* Citation Ratio (Economics Publications Only)



the underlying citation data. In the third period, with Keynes's citations reaching a plateau, the Schumpeter-to-Keynes ratio begins to grow, as Schumpeter's citations are steadily increasing. This period also coincides with a renewed interest in Schumpeter's work, as the literature on growth theory explodes after the publication of papers such as Romer (1986), Lucas (1988), and Romer (1990).⁴ One of the strands of literature emerging from the work on growth theory during this period is the so-called Schumpeterian growth theory, which operationalizes Schumpeter's idea of creative destruction.⁵ At the same time, this period coincides with the onset of the Great Moderation, which means business cycle fluctuations and how to manage them become less of a concern, keeping down the citations to Keynes. This, of course, ends with the Great Recession, and there is a renewed interest in Keynes in the fourth period. This interpretation is also consistent with the underlying data in figure 4.

⁴Warsh (2006) provides a detailed narrative describing these discoveries and the history of growth theory in general.

⁵See Aghion, Akcigit, and Howitt (2014) for a survey of Schumpeterian growth theory.

Figure 10 presents the *Capitalism, Socialism and Democracy*-to-*The General Theory* citation ratio for economics publications only. This ratio also differs when only looking at economics publications but only quantitatively. The qualitatively patterns in the series look quite similar, but all the data are just shifted down in magnitude. For example, the ratio only exceeds 1 during a single period, which is a big difference compared to the ratio for all publications seen in figure 8.

3.2 Schumpeter vs. Keynes in the Google Trends Data

In this section, we introduce an additional metric by which to measure the relative influence of the two authors over time. Figures 11 through 16 present monthly data on the popularity of the economists in terms of how often they were searched on Google from January of 2004 to December of 2017. The data are standardized on a 0 to 100 scale where the numbers represent search interest relative to the highest point on the chart for the given region and time. The maximum value of 100 is the peak popularity for the term, and a score of 50 means that the term was half as popular and so on. A value of 0 means that there was not enough data for this term. Google searches are clearly a much broader measure of influence than the citation counts in the Web of Science data, as any individual with internet access can potentially affect the measure.

First, we look at the search results in the U.S. and then we extend the data to worldwide searches. Because of the way the peak popularity is standardized to be 100, it makes sense to compare the search data for Schumpeter and Keynes separately in figures 11 through 14 and then to combine and standardize their results in figures 15 and 16. We use the recommended search term feature on Google Trends to define our search.⁶

Figure 11 presents the Google Trends data for Schumpeter in the U.S. Two features of the data are worth noting. The first, and perhaps most surprising, feature of the data is that Schumpeter achieves peak popularity at the initial data point and actually has a *declining* trend over time. This contrasts markedly with the Web of Science citation data. Since January 2004,

⁶This means we type, say, “Joseph Schumpeter” into the search bar, wait for the auto suggestions to appear, and then click on “Joseph Schumpeter, Economist.” Likewise, typing in “Keynes” yields “John Maynard Keynes, British economist” as a our search term.

Figure 11: Google Searches for Schumpeter (U.S.)

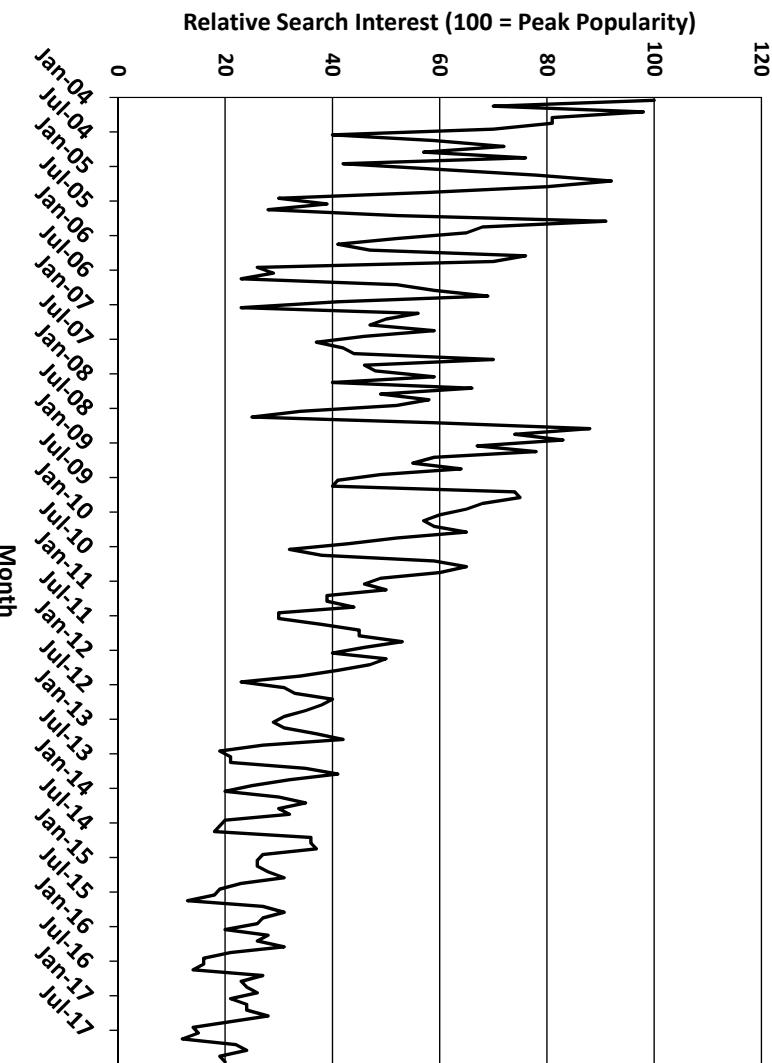


Figure 12: Google Searches for Keynes (U.S.)

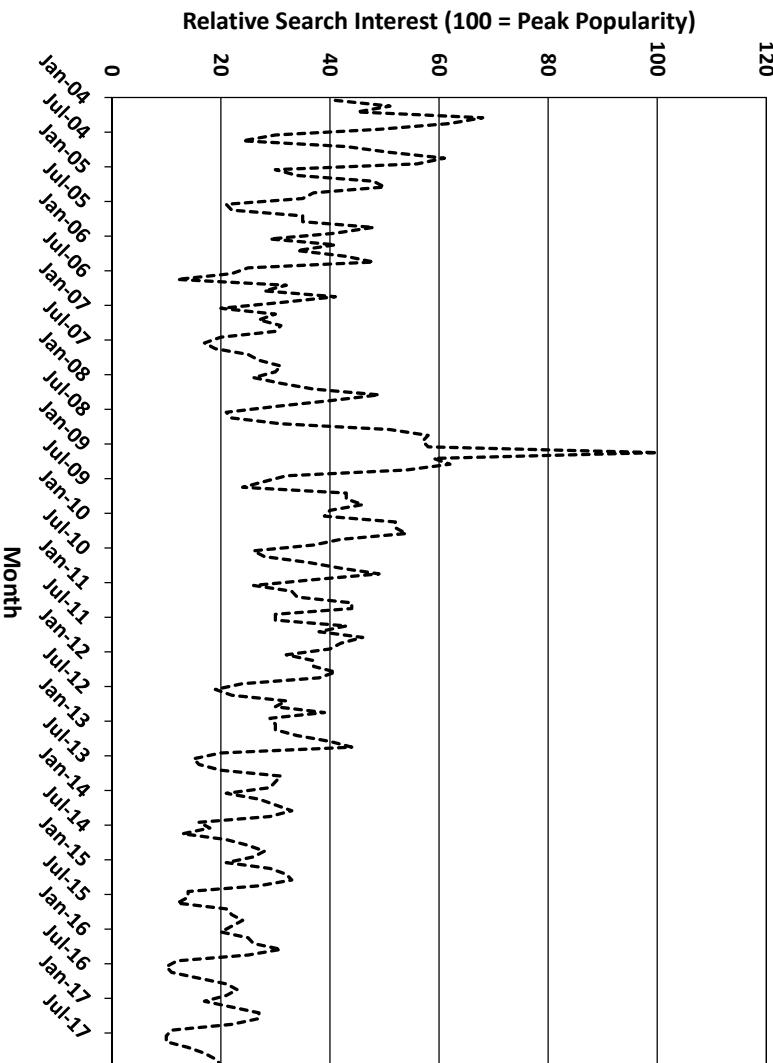
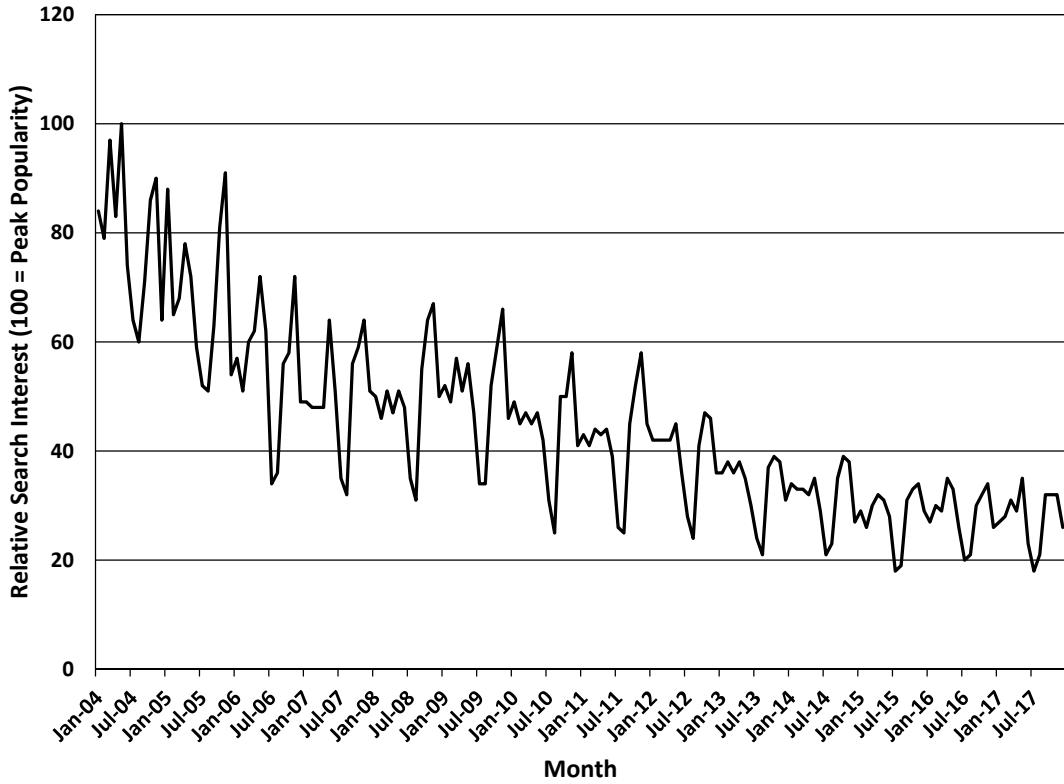


Figure 13: Google Searches for Schumpeter (Worldwide)

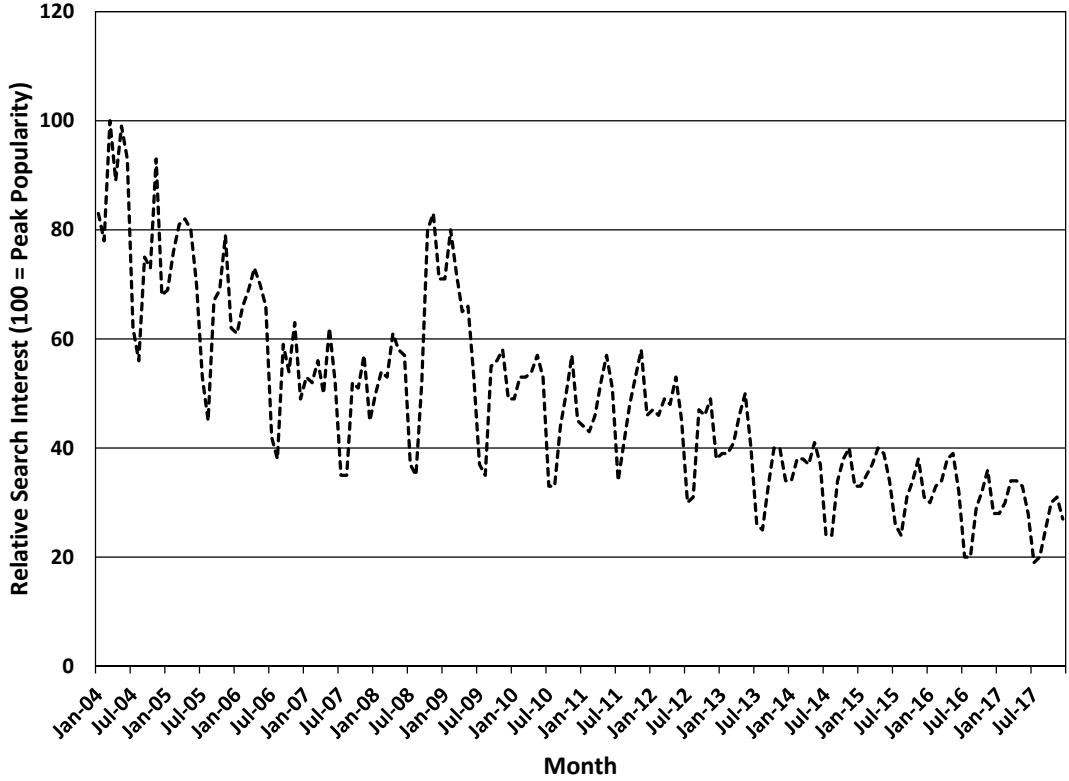


Schumpeter's popularity, as measured by Google Trends, has been falling, albeit somewhat unevenly. The second feature of the data worth noting is the spike in interest shortly after the onset of the Great Recession. Search interest in Schumpeter reaches 88 in October 2008, one month after Lehman Brothers declared bankruptcy. After this peak, however, search interest steadily declines, reaching its lowest point of 12 towards the end of the sample period in August 2017.⁷

Google searches for Keynes in the U.S. reach a peak much later than Schumpeter according to the data in figure 12. Keynes receives the maximum score of 100 in February of 2009, five months after Lehman Brothers declared bankruptcy and when the U.S. economy was in the midst of the Great Recession, which officially ended in June of 2009 according to the NBER's dating. Following this month of peak popularity, Keynes's relative search interest trends downward just

⁷There also seems to be a seasonal aspect to the data, with the summer months (May, June, July, and August) often having lower relative search interest values than the other months of the year. Although speculative on our part, this could reflect the academic school year. We see a similar seasonal trend when looking at the Google Trends data for Keynes.

Figure 14: Google Searches for Keynes (Worldwide)



like Schumpeter and reaches a low of 10 in August 2017. Thus, the Google Trend data for both authors differ from the results obtained from the Web of Science citation counts.

Comparing search interest for Schumpeter and Keynes worldwide to that of the previous results for the U.S. shows some important differences. First, Schumpeter's popularity trends downward over time, just like in the U.S., but does not experience a spike during the Great Recession (figure 13). Second, figure 14 shows search interest in Keynes also trends downward but experiences a spike during the Great Recession, as in the U.S. But, the results for Keynes's popularity in the U.S. and worldwide are still markedly different in that the intensity of the search interest during the Great Recession is much higher in the U.S. than worldwide. Whereas figure 12 for the U.S. shows a peak of 100 in February 2009, the data in figure 14 only reach 80 in February 2009. These results suggest Schumpeter and Keynes were more popular in the U.S. during the Great Recession, which makes sense given the origins of the financial crisis in the subprime mortgage market based primarily in the U.S.

Our final analysis of the Google Trends data compares the search popularity of Schumpeter

Figure 15: Google Searches for Schumpeter Compared to Keynes (U.S.)

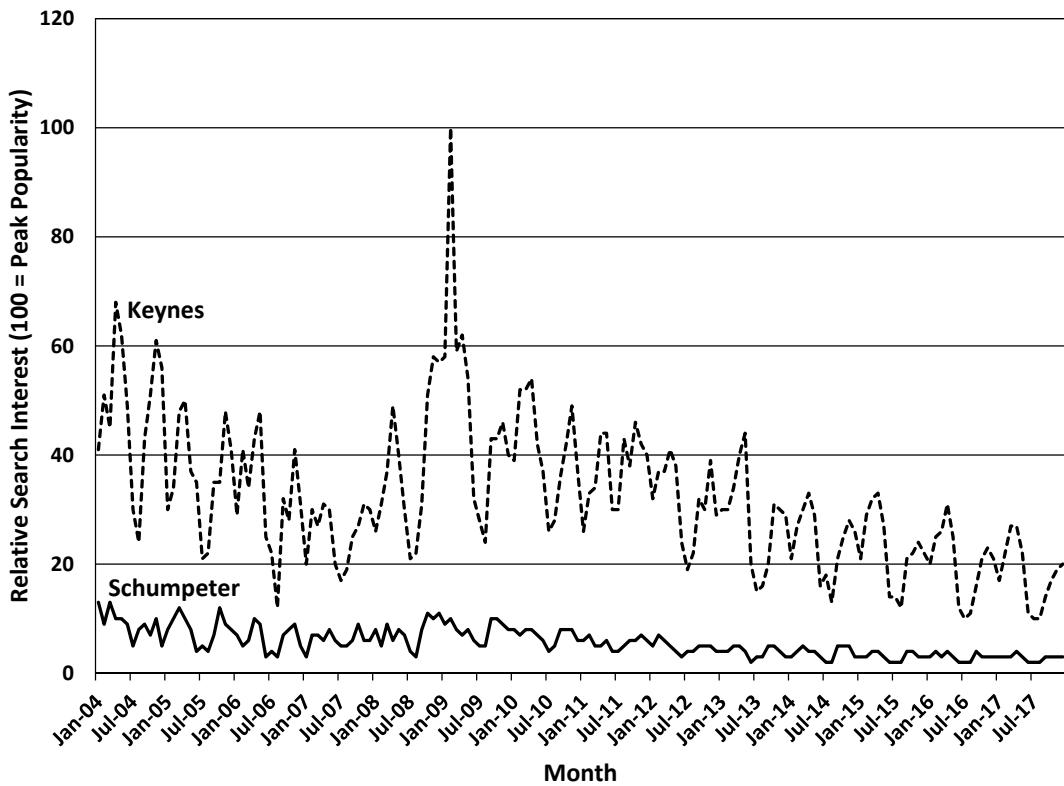
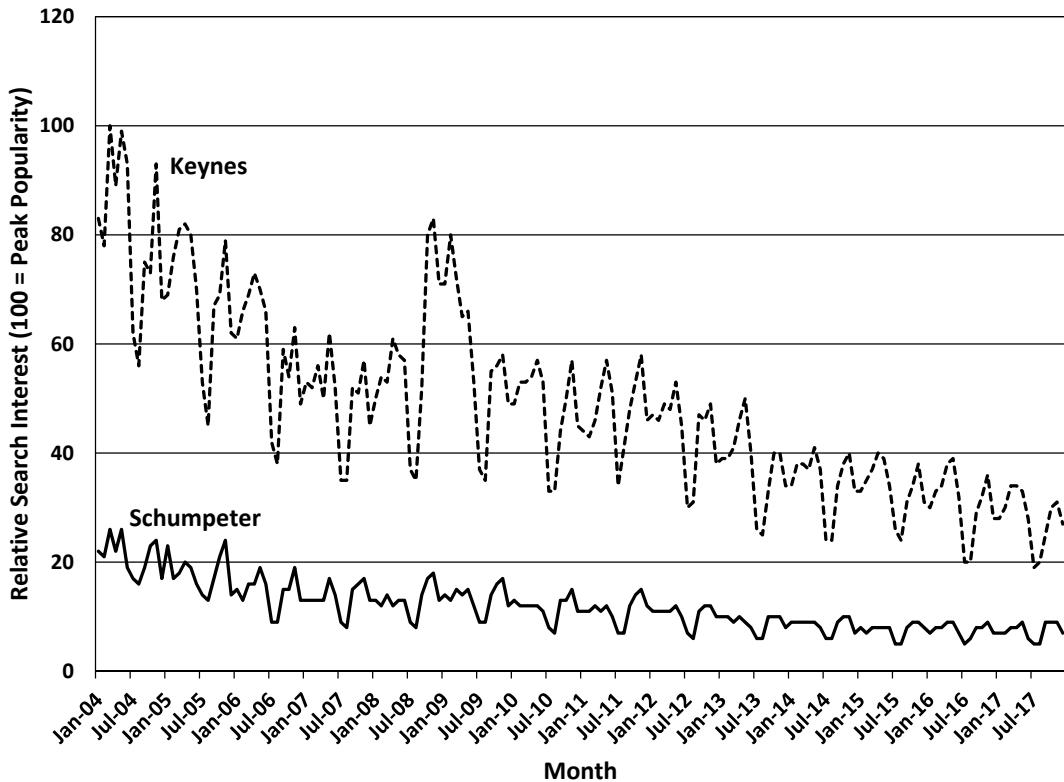


Figure 16: Google Searches for Schumpeter Compared to Keynes (Worldwide)



and Keynes at the same time. This allows us to see which economist was more popular at a particular time. Figures 15 and 16 present the results for the U.S. and worldwide, respectively. The patterns in both figures are similar. Search interest in Keynes is higher than Schumpeter with significant spikes during the Great Recession.

4 Conclusion

Schumpeter and Keynes are still not dead. Their ideas live on through their many seminal contributions, including those in *Capitalism, Socialism and Democracy* and *The General Theory of Employment, Interest, and Money*. At the time of their deaths, Keynes would have been considered the more influential economist of the two. Yet Diamond (2009) documents Schumpeter’s influence, as measured by citations, steadily increased since the 1950s and eventually surpassed that of Keynes. Since the publication of Diamond (2009), however, much has happened in the economics profession in the aftermath of the Great Recession, including an ongoing period of soul-searching in macroeconomics. With the availability of another decade’s worth of citation data, we revisit Diamond (2009)’s research question by comparing the time series of total citations for Schumpeter and Keynes.

Our replication shows the results in Diamond (2009) continue to hold. Extending the data to 2017 shows Schumpeter continues to outpace Keynes in citations, but Keynes has clearly undergone a resurgence, which we argue in part must be due to the interest in his ideas after the Great Recession. Documenting the ratio of citations between Schumpeter and Keynes allows us to more sharply and cleanly compare the two economists, and we find the patterns in the data consistent with major trends in macroeconomic research since the 1950s. Our analysis of the Google Trends data lends additional support to the idea of the Great Recession’s impact on reviving Keynes’s influence.

Although our contribution to the literature focuses on the comparative influence of Schumpeter and Keynes measured by citations, our results have a wider significance in that they clearly show the relevance of the history of economic thought and the ideas of particular economists to the public at large. The Google Trends data show searches for Schumpeter and Keynes spiking during the Great Recession, as people no doubt wrestled with how to understand the crisis and

which policies to support as a response. As the keepers of these particular flames, economists have a responsibility to articulate and pass on the lessons of the past. To that end, Dalton and Logan (2018) provide a description of a newly developed course on Schumpeter.

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