Fiscal Uncertainty and How to Deal with It

Alan Auerbach
University of California, Berkeley
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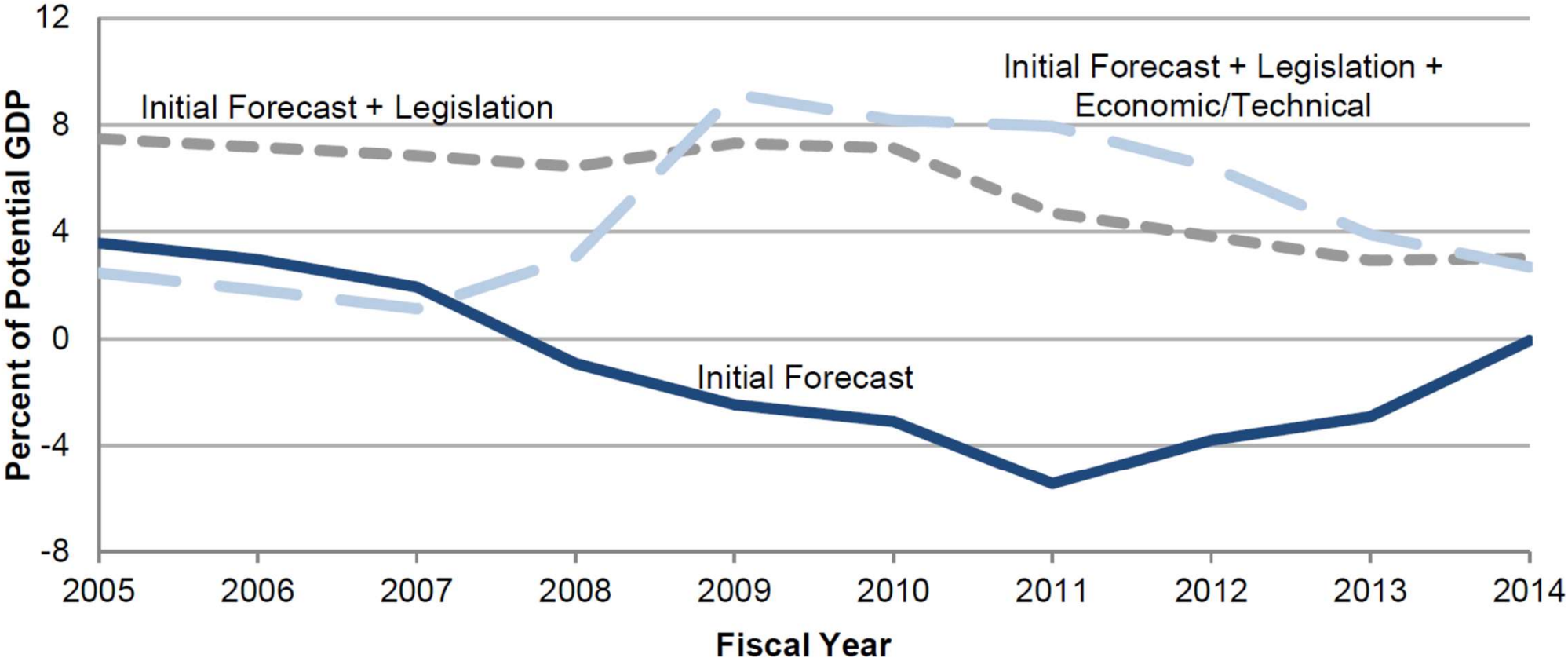
Basic Conundrum

- For many countries, long-term projections for the paths of deficits look much worse than those for the very short term, in part because of demographic factors
  - An unsustainable path without major changes from current policy; i.e. a large ***fiscal gap***
- But the size of this gap is subject to considerable uncertainty
- How should policy deal with the prospect?
- Comments draw on Auerbach (2014) and other papers

Uncertainty and the Decision Horizon

- Even in the simpler case of short-term policy decisions, there is considerable uncertainty
  - Illustration: US 10-year forecast and *ex post* federal budget deficits

Figure 1. 10-Year Deficit Forecast Errors



Source: Author's calculations based on CBO data.

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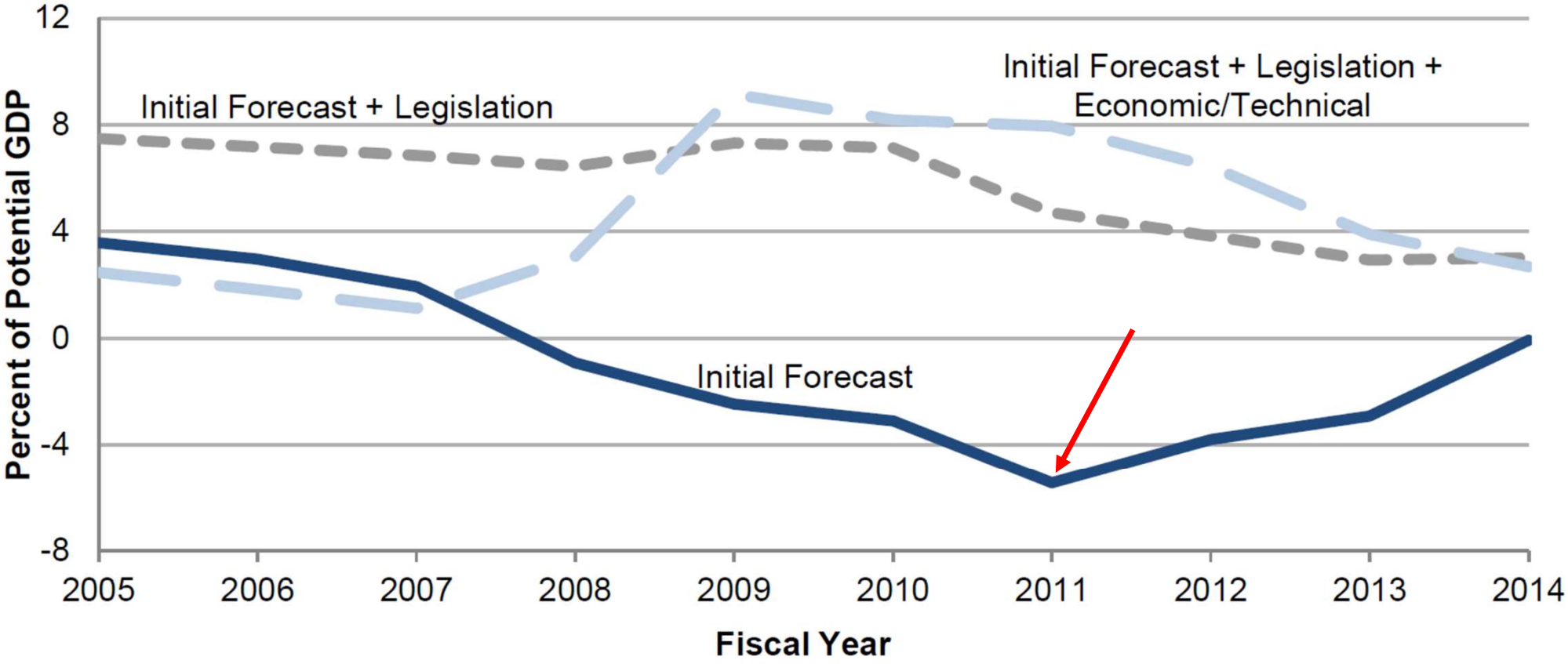

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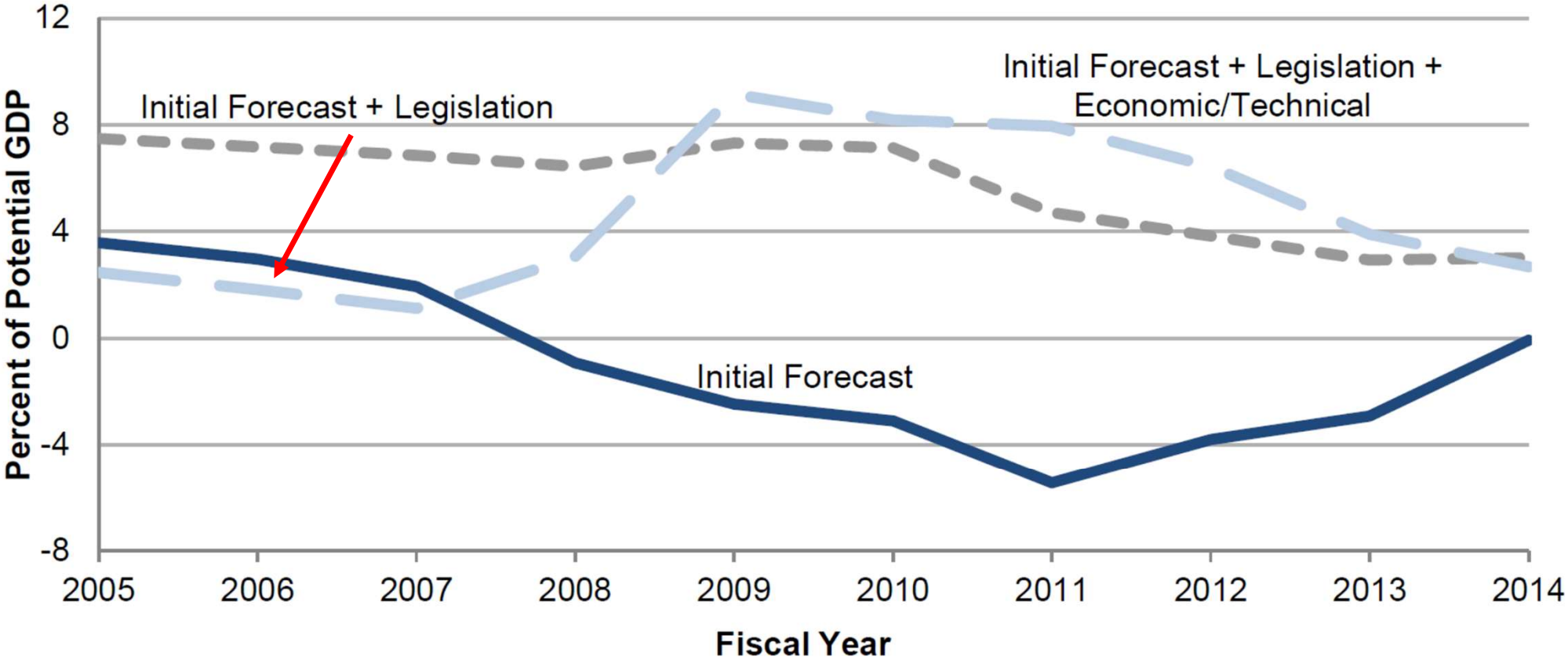

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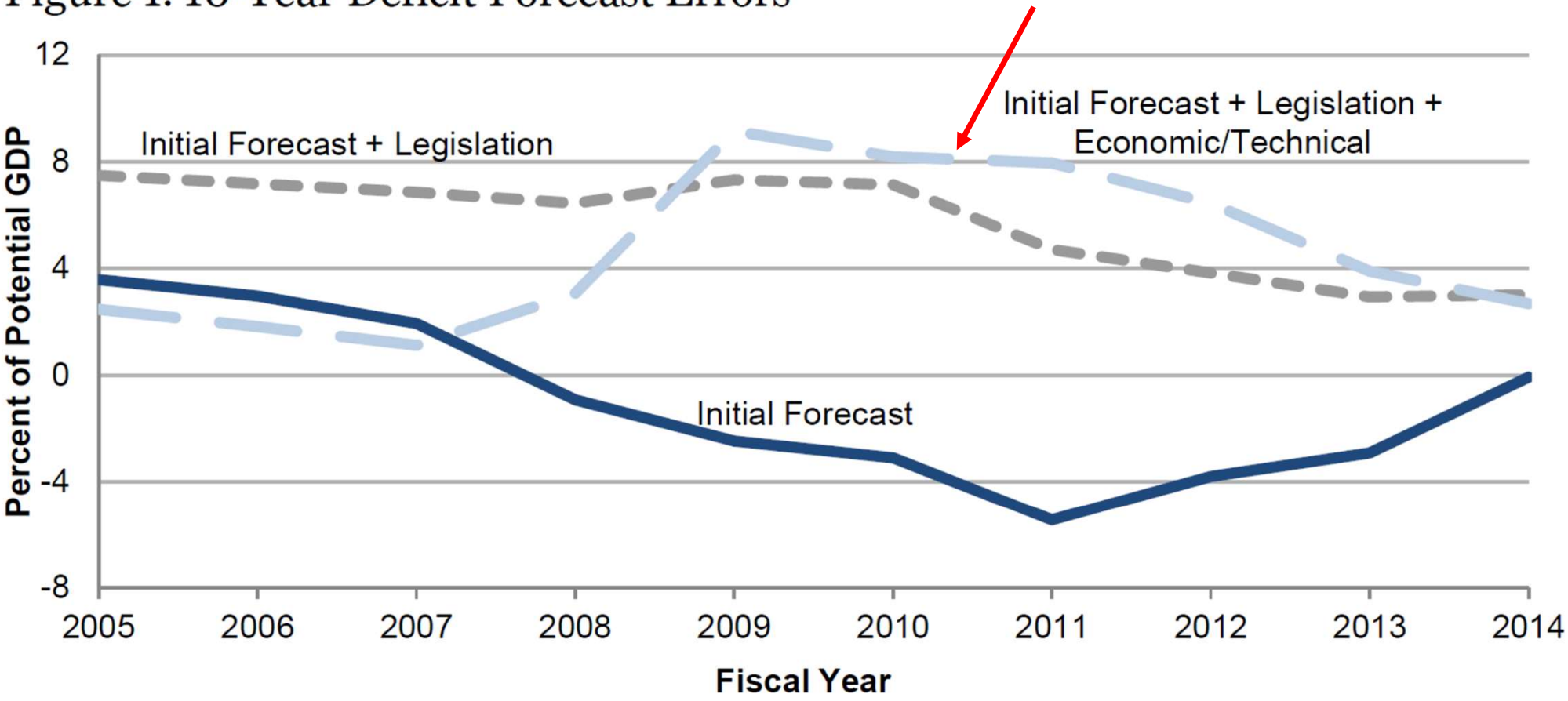

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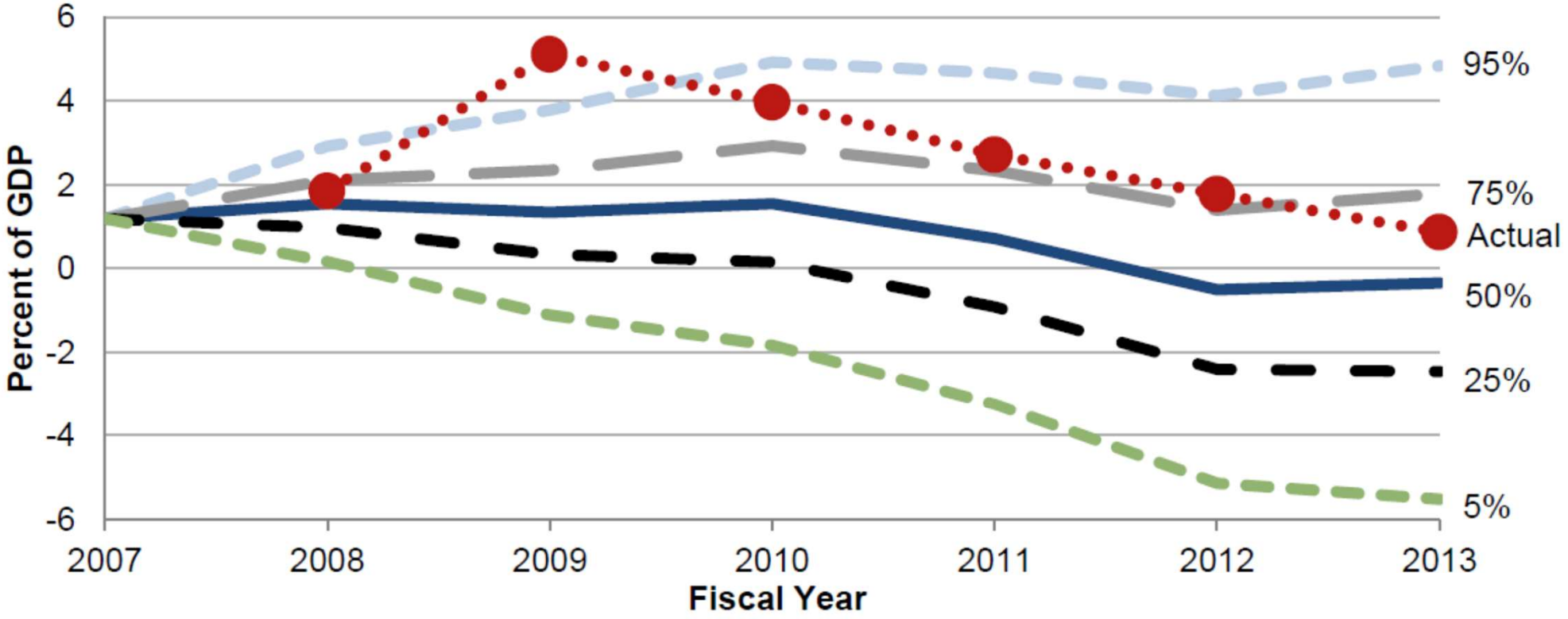
Uncertainty and the Decision Horizon

- Even in the simpler case of short-term policy decisions, there is considerable uncertainty
  - Illustration: US 10-year forecast and *ex post* federal budget deficits
- Moreover, error bands increase rapidly with forecast horizon, due to compounding errors for many sources of uncertainty
  - Illustration: US federal budget deficits, holding policy given, as projected by the US Congressional Budget Office at the outset of the global financial crisis and *ex post*

Figure 2. Current Policy Deficits

March 2008 Confidence Intervals



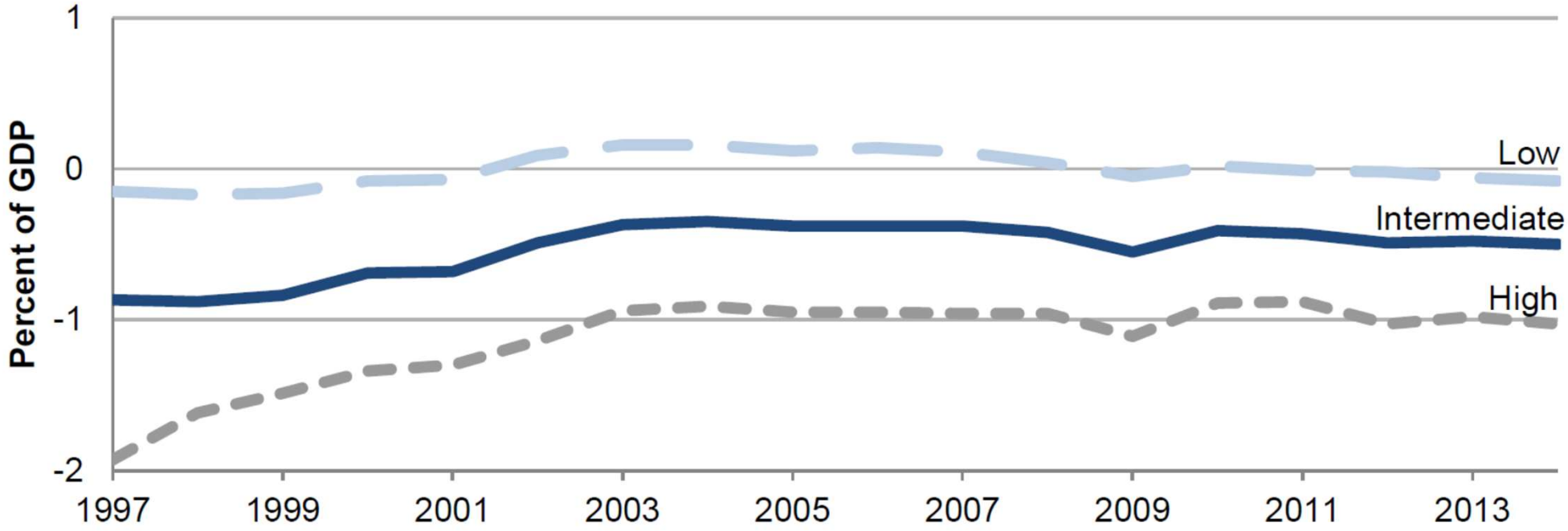
Source: CBO (2008) and author's calculations.

Uncertainty and the Decision Horizon

- For longer-term forecasts, considerable uncertainty
- Typically not expressed in terms of confidence bounds, because of difficulty even of defining them
- Also, some sources of long-term uncertainty not necessarily subject to the same stochastic properties over time

Figure 3b. Forecast OASDI Balance for 2020

By Scenario



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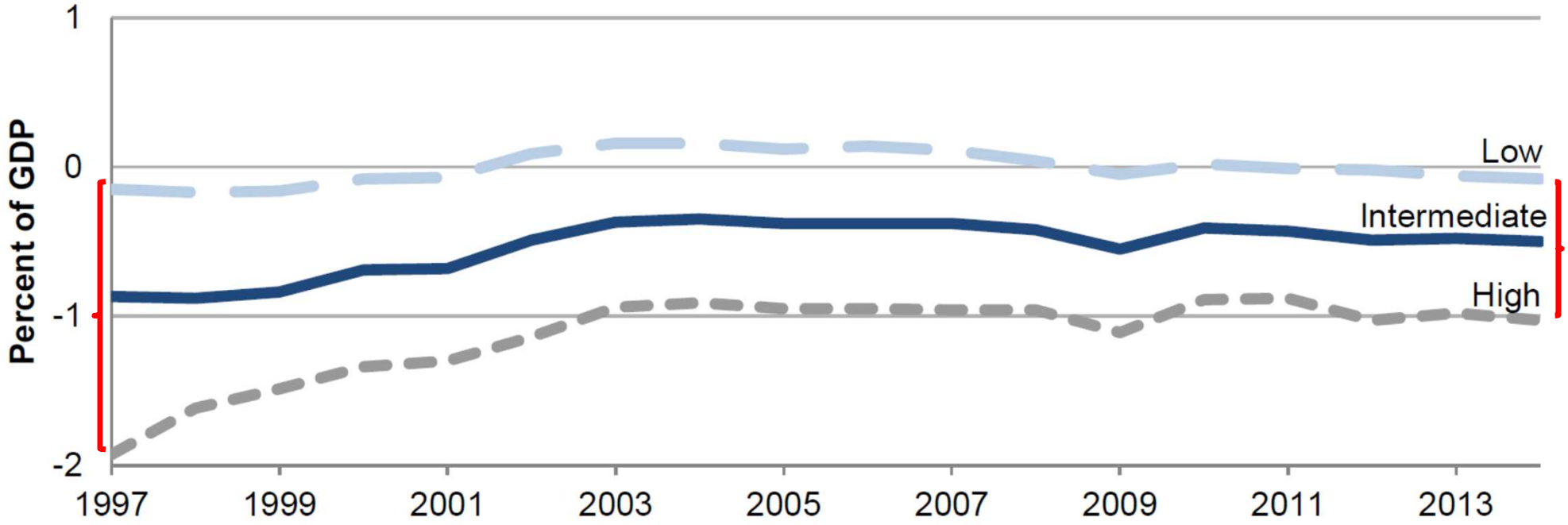
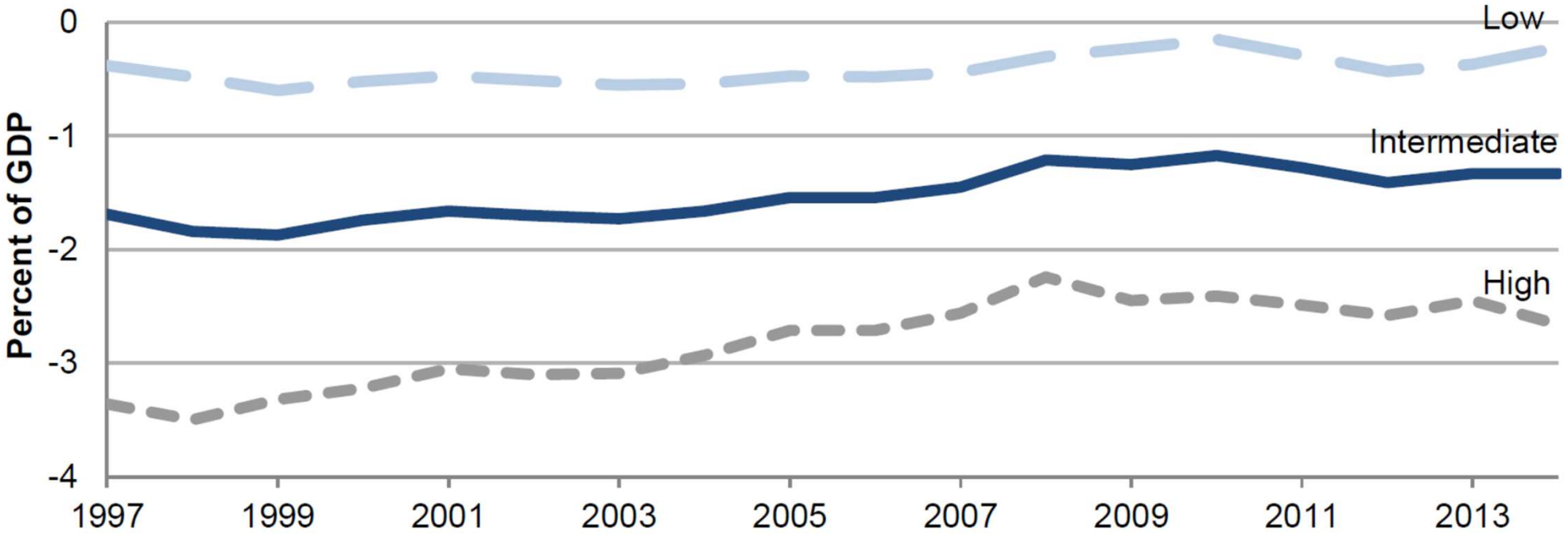


Figure 3c. Forecast OASDI Balance for 2045

By Scenario



What to Do?

- Issue of interest here is not how to deal with fiscal imbalances, but how our responses should change because of this uncertainty
  - As with OASDI, imbalances may be likely, but we don't know how large

Table 1: Effects of Uncertainty on the 25-Year Fiscal Gap

Under CBO's (2014b) Extended Baseline Scenario

			Fiscal Gap (%)		
Factor	**Baseline Value (%)**	**Range (%)**	**Low**	**Baseline**	**High**
Mortality Rate (Annual Rate of Decline)	1.2	± 0.5	1.2	1.2	1.3
Productivity Growth Rate	1.3	± 0.5	0.6	1.2	1.9
Interest Rate on Federal Debt (Average over Period)	4.1	± 0.75	0.7	1.2	1.7
Excess Health Cost Growth Rate	*	± 0.75	0.7	1.2	1.9
Combination of all Factors		**	0.1	1.2	2.5

Notes:

* Medicare range for the period is 1.26-1.39; Medicaid range is 0.90-1.38.

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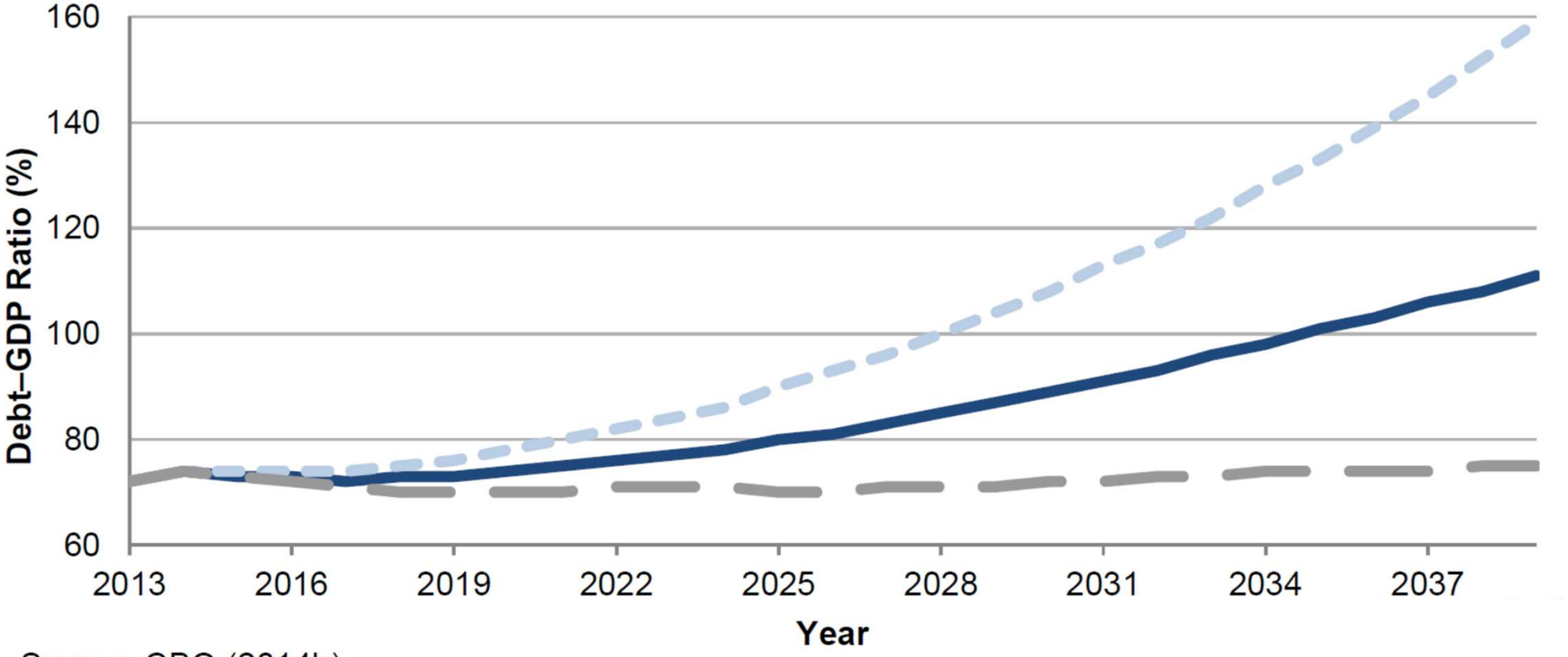
Figure 5. Debt–GDP Ratio Range

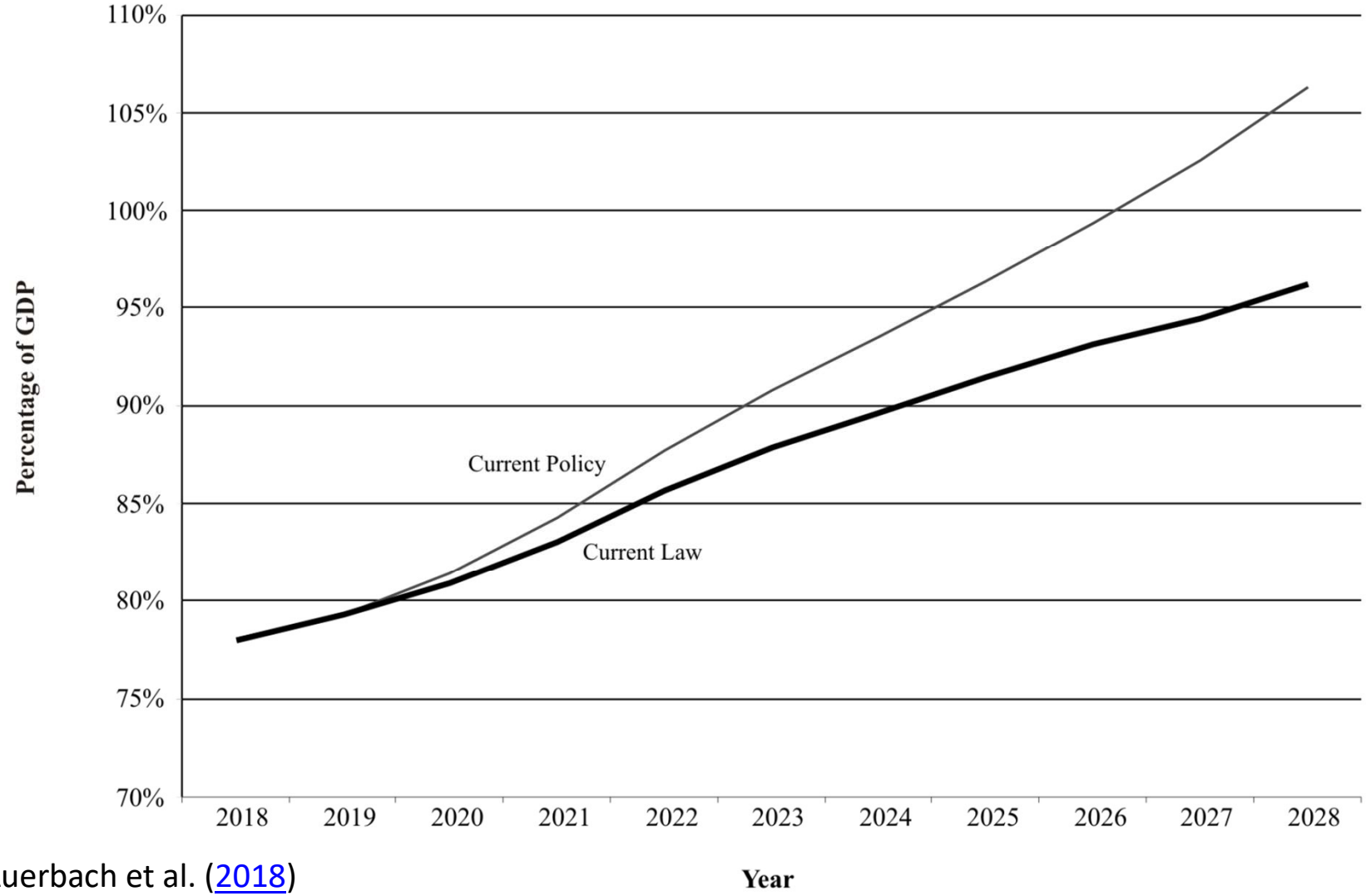


Source: CBO (2014b)

What to Do?

- Issue of interest here is not how to deal with fiscal imbalances, but how our responses should change because of this uncertainty
  - As with OASDI, imbalances may be likely, but we don't know how large
  - Also, policy itself, both through reactions to economic conditions and independent shocks, is a main source of uncertainty

Figure 2. Debt Projections, 2018-2028



Source: Auerbach et al. (2018)

Common Responses

- Stein's Law
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  - "If something cannot go on forever, it will stop"
  - Implication: if, under some circumstances, projected deficits are unsustainable, then they won't continue
- Changes will occur, but when and how?
- And how will such a "passive" trajectory compare to a desirable, planned transition?

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- Stein's Law
- Projections beyond [ ] years are so uncertain that we should ignore them, or at least discount them more in our policy responses
- But what does that imply?
  - Assume problems that are projected to be big and getting worse as of year *t* vanish in year *t*+1?

Taking Precaution

- If the future is very uncertain, a case for saving more for the future, whether by an individual or by a government
- Things more complicated when analyzing what government should do, but the main conclusion still holds, and may even be reinforced

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  - If people will be better off in the future, they can absorb greater fiscal burdens
- But, this is an argument about how to deal with projected fiscal imbalance, not with the uncertainty about it
  - E.g., perhaps save less now to account for future well-being, but still want a precautionary response

Government vs. Individual Saving

- Also, governments must use distortionary taxation to raise resources
  - Economic costs of very high future marginal tax rates push toward more active responses now, because
    1) Larger dispersion of future outcomes
    2) Worse average future outcome
- A similar motivation comes from an incentive to avoid a costly fiscal crisis if adversity strikes

Further Issues

Risk vs. Uncertainty

- Knightian uncertainty
  - E.g., it's not that we are very uncertain about the future; we really have no idea
- This type of uncertainty may be something we wish to avoid, but not something we should ignore
  - We may possibly want to be even more prudent in response

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- Should we wait to act?
- It depends on the evolution of uncertainty
  - If new shocks appear at a steady rate, there is no gain to waiting, and a loss due to the restriction of our options
  - Even if important types of uncertainty will be resolved, this should influence the types of responses, rather than our decision to act

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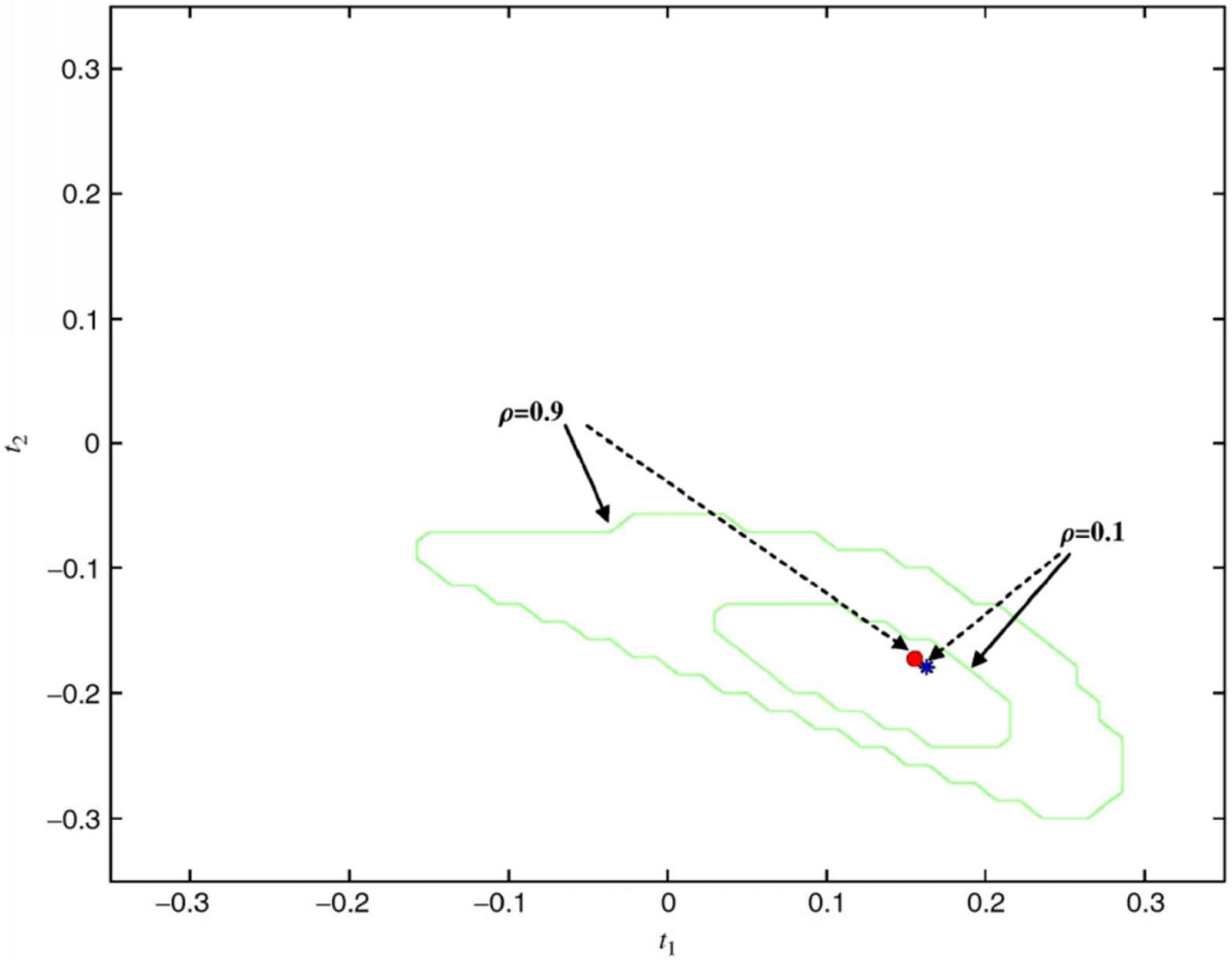

Fig. 2. Inaction ranges ($r^* = 2$, $\beta = 1.0$, $\rho = 0.1, 0.9$).

Costs of Political Action

- Perhaps it is difficult to gather consensus to modify policy; we can't be changing policy continually whenever information changes
  - Implies that we may wish to wait to act, with a bias toward less fiscal tightening (Auerbach and Hassett, 2007)
  - But when we do act, we should act more forcefully
- We can also put in place some automatic responses if we can be fairly confident about what those responses should be as events unfold

Political Pressure on Forecasts

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- With greater uncertainty, projections are more susceptible to political influence (e.g., Auerbach 1999)
- This may well be true
  - Some evidence of overly optimistic projections in some environments
- But this provides an argument for institutional protections and transparency, not for ignoring information

Summary

- Uncertainty means our policy choices will always turn out to be “wrong”
- But ignoring uncertainty doesn’t make it go away; a more active response can lessen its negative consequences