Some BibTex Style Examples

Ekkehart Schlicht

1st March 2006

The subsequent files illustrate some citation styles found in my MikTex distribution. The name of the style file used is given in the upper left-hand corner of the corresponding example sheet.

All sheets are produced by using NatBib (Layout → Document→Bibliography→ Use NatBib (author-year).

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Philippe Aghion and Peter Howitt. *Endogenous Growth Theory*. MIT Press, Cambridge M. A., 1998.

Charles I. Jones and Dean Scrimegour. The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138, November 2004.

Hirofumi Uzawa. Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24, February 1961.

Carl-Christian von Weizsäcker. Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51, July 1966.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe and Peter Howitt, *Endogenous Growth Theory*, Cambridge M. A.: MIT Press, 1998.

Jones, Charles I. and Dean Scrimegour, "The Steady-State Growth Theorem: A Comment on Uzawa (1961)," Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138 November 2004.

Uzawa, Hirofumi, "Neutral Inventions and the Stability of Growth Equilibrium," *Review of Economic Studies*, February 1961, *28* (2), 117–24.

von Weizsäcker, Carl-Christian, "Tentative Notes on a Two Sector Model with Induced Technical Progress," *Review of Economic Studies*, July 1966, *33* (3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. & Howitt, P. (1998), *Endogenous Growth Theory*, MIT Press, Cambridge M. A.

Jones, C. I. & Scrimegour, D. (2004), The steady-state growth theorem: A comment on uzawa (1961), Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.
URL: *http://papers.nber.org/papers/w10921.pdf*

Uzawa, H. (1961), 'Neutral inventions and the stability of growth equilibrium', *Review of Economic Studies* **28**(2), 117–24.

von Weizsäcker, C.-C. (1966), 'Tentative notes on a two sector model with induced technical progress', *Review of Economic Studies* **33**(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. (1998). *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. (2004). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. & Howitt, P. (1998). *Endogenous Growth Theory*. Cambridge M. A.: MIT Press.

Jones, C. I. & Scrimegour, D. (2004). *The Steady-State Growth Theorem: A Comment on Uzawa (1961)*. Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2), 117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. (1998). *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. (2004). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P.: 1998, *Endogenous Growth Theory*, MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D.: 2004, *The Steady-State Growth Theorem: A Comment on Uzawa (1961)*, Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138

Uzawa, H.: 1961, *Review of Economic Studies* **28(2)**, 117

von Weizsäcker, C.-C.: 1966, *Review of Economic Studies* **33(3)**, 245

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe, & Howitt, Peter. 1998. *Endogenous Growth Theory.* Cambridge M. A.: MIT Press.

Jones, Charles I., & Scrimegour, Dean. 2004 (November). *The Steady-State Growth Theorem: A Comment on Uzawa (1961).* Tech. rept. 10921. National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, Hirofumi. 1961. Neutral Inventions and the Stability of Growth Equilibrium. *Review of Economic Studies*, **28**(2), 117–24.

von Weizsäcker, Carl-Christian. 1966. Tentative Notes on a Two Sector Model with Induced Technical Progress. *Review of Economic Studies*, **33**(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe, & Howitt, Peter. 1998. *Endogenous growth theory.* Cambridge M. A.: MIT Press.

Jones, Charles I., & Scrimegour, Dean. 2004 (November). *The steady-state growth theorem: A comment on uzawa (1961).* Tech. rept. 10921. National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, Hirofumi. 1961. Neutral inventions and the stability of growth equilibrium. *Review of economic studies*, **28**(2), 117–24.

von Weizsäcker, Carl-Christian. 1966. Tentative notes on a two sector model with induced technical progress. *Review of economic studies*, **33**(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe, & Howitt, Peter. 1998. *Endogenous Growth Theory.* Cambridge M. A.: MIT Press.

Jones, Charles I., & Scrimegour, Dean. 2004 (November). *The Steady-State Growth Theorem: A Comment on Uzawa (1961).* Tech. rept. 10921. National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, Hirofumi. 1961. Neutral Inventions and the Stability of Growth Equilibrium. *Review of Economic Studies*, **28**(2), 117–24.

von Weizsäcker, Carl-Christian. 1966. Tentative Notes on a Two Sector Model with Induced Technical Progress. *Review of Economic Studies*, **33**(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe, & Howitt, Peter. 1998. *Endogenous growth theory.* Cambridge M. A.: MIT Press.

Jones, Charles I., & Scrimegour, Dean. 2004 (November). *The steady-state growth theorem: A comment on uzawa (1961).* Tech. rept. 10921. National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, Hirofumi. 1961. Neutral inventions and the stability of growth equilibrium. *Review of economic studies*, **28**(2), 117–24.

von Weizsäcker, Carl-Christian. 1966. Tentative notes on a two sector model with induced technical progress. *Review of economic studies*, **33**(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. & Howitt, P. (1998). *Endogenous Growth Theory*. MIT Press.

Jones, C. I. & Scrimegour, D. (2004). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. 1998. Endogenous Growth Theory. MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. 2004. The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. 1961. Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies* 28:117–24.

von Weizsäcker, C.-C. 1966. Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies* 33:245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and P. Howitt (1998). *Endogenous Growth Theory*. Cambridge M. A.: MIT Press.

Jones, C. I. and D. Scrimegour (2004, November). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961, February). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies 28*(2), 117–24.

von Weizsäcker, C.-C. (1966, July). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies 33*(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and P. Howitt (1998). *Endogenous Growth Theory*. Cambridge M. A.: MIT Press.

Jones, C. I. and D. Scrimegour (2004, November). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961, February). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies 28*(2), 117–24.

von Weizsäcker, C.-C. (1966, July). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies 33*(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P., and P. Howitt (1998): *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I., and D. Scrimegour (2004): "The Steady-State Growth Theorem: A Comment on Uzawa (1961)," Discussion Paper 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961): "Neutral Inventions and the Stability of Growth Equilibrium," *Review of Economic Studies*, 28(2), 117–24.

von Weizsäcker, C.-C. (1966): "Tentative Notes on a Two Sector Model with Induced Technical Progress," *Review of Economic Studies*, 33(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. 1998. *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. 2004. The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. 1961. Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C. 1966. Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and P. Howitt
1998. *Endogenous Growth Theory*. Cambridge M. A.: MIT Press.

Jones, C. I. and D. Scrimegour
2004. The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H.
1961. Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C.
1966. Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and P. Howitt, 1998: *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I. and D. Scrimegour, 2004: The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H., 1961: Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, **28**(2), 117–24.

von Weizsäcker, C.-C., 1966: Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, **33**(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and P. Howitt [1998], *Endogenous Growth Theory*, MIT Press, Cambridge M. A.

Jones, C. I. and D. Scrimegour [2004], "The steady-state growth theorem: A comment on uzawa (1961)," Tech. Rep. 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138, URL `http://papers.nber.org/papers/w10921.pdf`.

Uzawa, H. [1961], "Neutral inventions and the stability of growth equilibrium," *Review of Economic Studies*, 28, 117–24.

von Weizsäcker, C.-C. [1966], "Tentative notes on a two sector model with induced technical progress," *Review of Economic Studies*, 33, 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. & Howitt, P. (1998). *Endogenous Growth Theory.* Cambridge M. A.: MIT Press.

Jones, C. I. & Scrimegour, D. (2004). Technical Report 10921 National Bureau of Economic Research 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). *Review of Economic Studies,* **28** (2), 117–24.

von Weizsäcker, C.-C. (1966). *Review of Economic Studies,* **33** (3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, Philippe and Peter Howitt (1998), *Endogenous Growth Theory*, MIT Press, Cambridge M. A.

Jones, Charles I. and Dean Scrimegour (2004), The steady-state growth theorem: A comment on uzawa (1961), Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.
URL: *http://papers.nber.org/papers/w10921.pdf*

Uzawa, Hirofumi (1961), 'Neutral inventions and the stability of growth equilibrium', *Review of Economic Studies* **28**(2), 117–24.

von Weizsäcker, Carl-Christian (1966), 'Tentative notes on a two sector model with induced technical progress', *Review of Economic Studies* **33**(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion P and Howitt P 1998 *Endogenous Growth Theory* MIT Press Cambridge M. A.

Jones C I and Scrimegour D 2004 The steady-state growth theorem: A comment on uzawa (1961) Technical Report 10921 National Bureau of Economic Research 1050 Massachusetts AvenueCambridge, MA 02138.
URL: *http://papers.nber.org/papers/w10921.pdf*

Uzawa H 1961 *Review of Economic Studies* **28**(2), 117–24.

von Weizsäcker C C 1966 *Review of Economic Studies* **33**(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. (1998) , *Endogenous Growth Theory*, Cambridge M. A.: MIT Press

Jones, C. I. and Scrimegour, D. (2004) , *The Steady-State Growth Theorem: A Comment on Uzawa (1961)*, Technical Report 10921, 1050 Massachusetts AvenueCambridge, MA 02138: National Bureau of Economic Research

Uzawa, H. (1961) , *Review of Economic Studies* **28(2)**, 117

von Weizsäcker, C.-C. (1966) , *Review of Economic Studies* **33(3)**, 245

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P.: 1998, *Endogenous Growth Theory*, MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D.: 2004, The steady-state growth theorem: A comment on uzawa (1961), *Technical Report 10921*, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.
URL: *http://papers.nber.org/papers/w10921.pdf*

Uzawa, H.: 1961, Neutral inventions and the stability of growth equilibrium, *Review of Economic Studies* **28**(2), 117–24.

von Weizsäcker, C.-C.: 1966, Tentative notes on a two sector model with induced technical progress, *Review of Economic Studies* **33**(3), 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker 1966) .

Uzawa's [1961] theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa [1961] and the more recent reformulation by Jones and Scrimegour [2004], the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Philippe Aghion and Peter Howitt. *Endogenous Growth Theory*. MIT Press, Cambridge M. A., 1998.

Charles I. Jones and Dean Scrimegour. The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138, November 2004.

Hirofumi Uzawa. Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24, February 1961.

Carl-Christian von Weizsäcker. Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51, July 1966.

[1] As Aghion and Howitt [1998, 16 n.] remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones & Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. & Howitt, P. (1998). *Endogenous Growth Theory*. Cambridge M. A.: MIT Press.

Jones, C. I. & Scrimegour, D. (2004). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, *28*(2), 117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, *33*(3), 245–51.

[1] As Aghion & Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. (1998). *Endogenous Growth Theory*. MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. (2004). The steady-state growth theorem: A comment on uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). Neutral inventions and the stability of growth equilibrium. *Review of Economic Studies*, 28(2):117–24.

von Weizsäcker, C.-C. (1966). Tentative notes on a two sector model with induced technical progress. *Review of Economic Studies*, 33(3):245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .

Uzawa's (1961) theorem states, broadly speaking, that balanced growth requires technological progress to be Harrod neutral (purely labor-augmenting) along the equilibrium growth path. This is an extremely restrictive, and consequently extremely decisive, requirement, establishing that steady-state growth is a highly singular and therefore highly improbable case.[1] Yet textbooks mention the issue only in a cavalier manner, if at all. This may be caused by the original proof being quite intricate. The purpose of this note is to provide a very short proof for a more general variant of the theorem. The theorem establishes that exponential growth implies Harrod neutrality. ("Exponential growth" refers to the case that all key variables grow exponentially; "balanced growth," requiring certain variables to grow in proportion, is covered as a special case.) In contrast to the classical statement by Uzawa (1961) and the more recent reformulation by Jones and Scrimegour (2004), the theorem does not involve assumptions about factor pricing (such as marginal productivity theory) or savings behavior.

References

Aghion, P. and Howitt, P. (1998). *Endogenous Growth Theory.* MIT Press, Cambridge M. A.

Jones, C. I. and Scrimegour, D. (2004). The Steady-State Growth Theorem: A Comment on Uzawa (1961). Technical Report 10921, National Bureau of Economic Research, 1050 Massachusetts AvenueCambridge, MA 02138.

Uzawa, H. (1961). *Review of Economic Studies* **28**, 117–24.

von Weizsäcker, C.-C. (1966). *Review of Economic Studies* **33**, 245–51.

[1] As Aghion and Howitt (1998, 16 n.) remark, "there is no good reason that technological change takes that form." This singularity is *not* removed by theories about an induced bias in technological progress (von Weizsäcker, 1966) .