

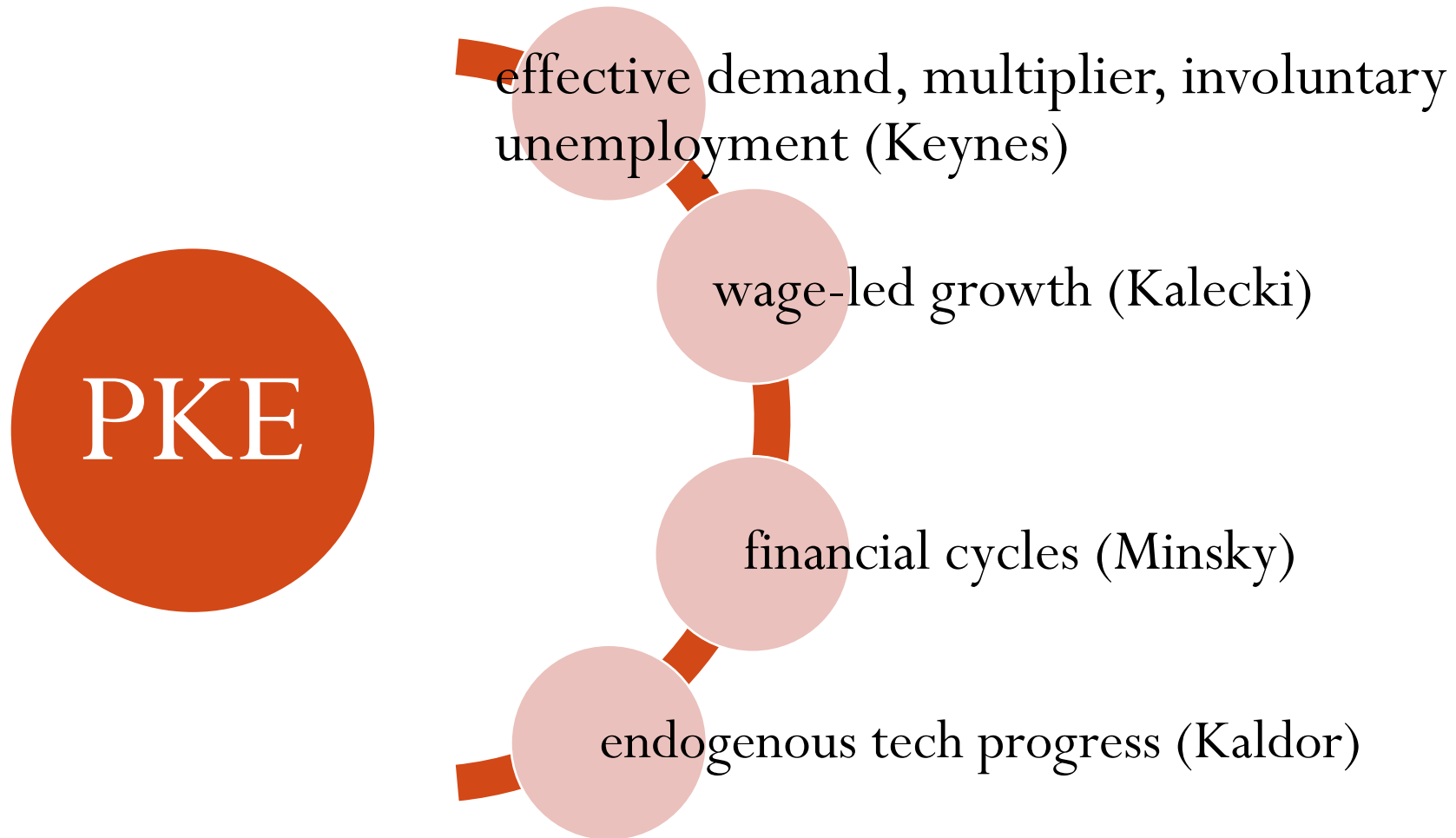
An Introduction to Post-Keynesian Economics

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From Keynes to Post-Keynesian Economics

- After publication of General Theory discussion on interpretation of Keynes' theory
 - Involuntary unemployment, financial crisis
 - Hicks develops ISLM; mainstream Keynesianism: neoclassical-Keynesian Synthesis, later New Keynesian Econ
- PKE emphasises break of Keynesian theory from neoclassical theory
 - Reject need for microfoundations of macroeconomics
- Developed by the collaborators of Keynes (Joan Robinson, Kaldor, Kahn; Kalecki)
- Initial project: turn Keynes' theory from a short run theory to longer term theory
 - develop a Keynesian growth theory
 - Criticise neoclassical theory of income distribution (Cambridge Capital Controversies)
- School formation in 1970s

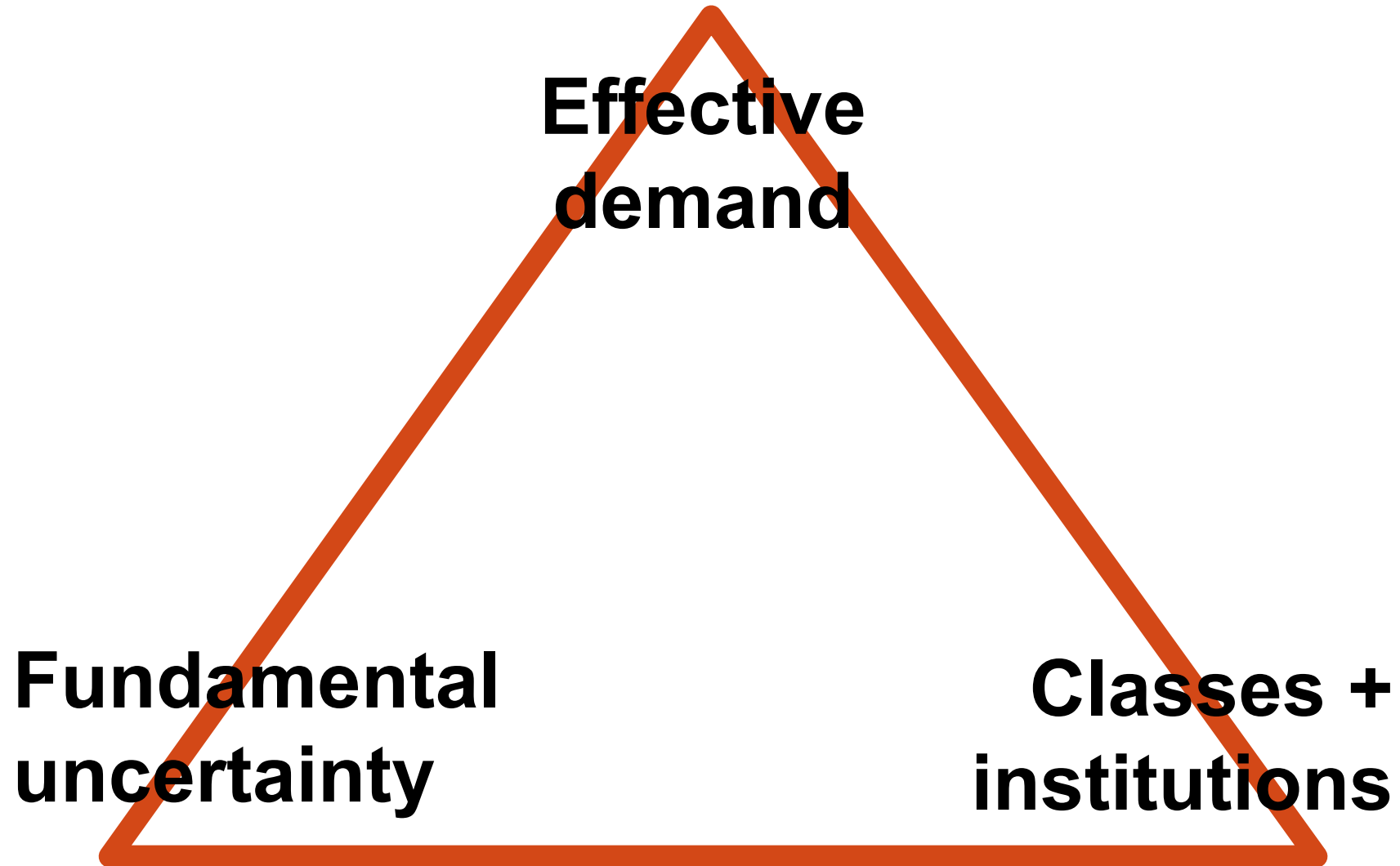
Post-Keynesian Econ



Outline

- Foundations
 - Fundamental uncertainty
 - social conflict, heterogeneity, and institutions
 - Effective demand
- Macroeconomics
 - Investment → savings
 - Involuntary unemployment
- Financial instability
- The supply side: hysteresis and cumulative causation
- Gendered PK macro models
- Outcomes: some paradoxes
- Current debates and comparison to New Keynesians, Marxism
- Economic Policy

Foundations of Post Keynesian Economics



Foundations 1: Fundamental uncertainty

- ‘we simply don’t know’
 - That’s a statement about the world, not about human cognitive abilities
- → animal spirits: people can’t be ‘rational’, instead
 - They rely on conventions (heuristics) = look what other people are doing (social norms, anchoring, institutions)
 - Assume that the future is similar to the past (adaptive expectations)
 - Conventions can change rapidly (herd behaviour)
 - Modelling: self-fulfilling prophecies and interaction of different rules of expectation formation (Franke and Westerhoff 2017)
- Money as a means to deal with uncertainty → liquidity preference
 - Possibility of liquidity crises and panic
- Investment demand driven by animal spirits
 - Can’t make a ‘rational’ decision about long time horizon

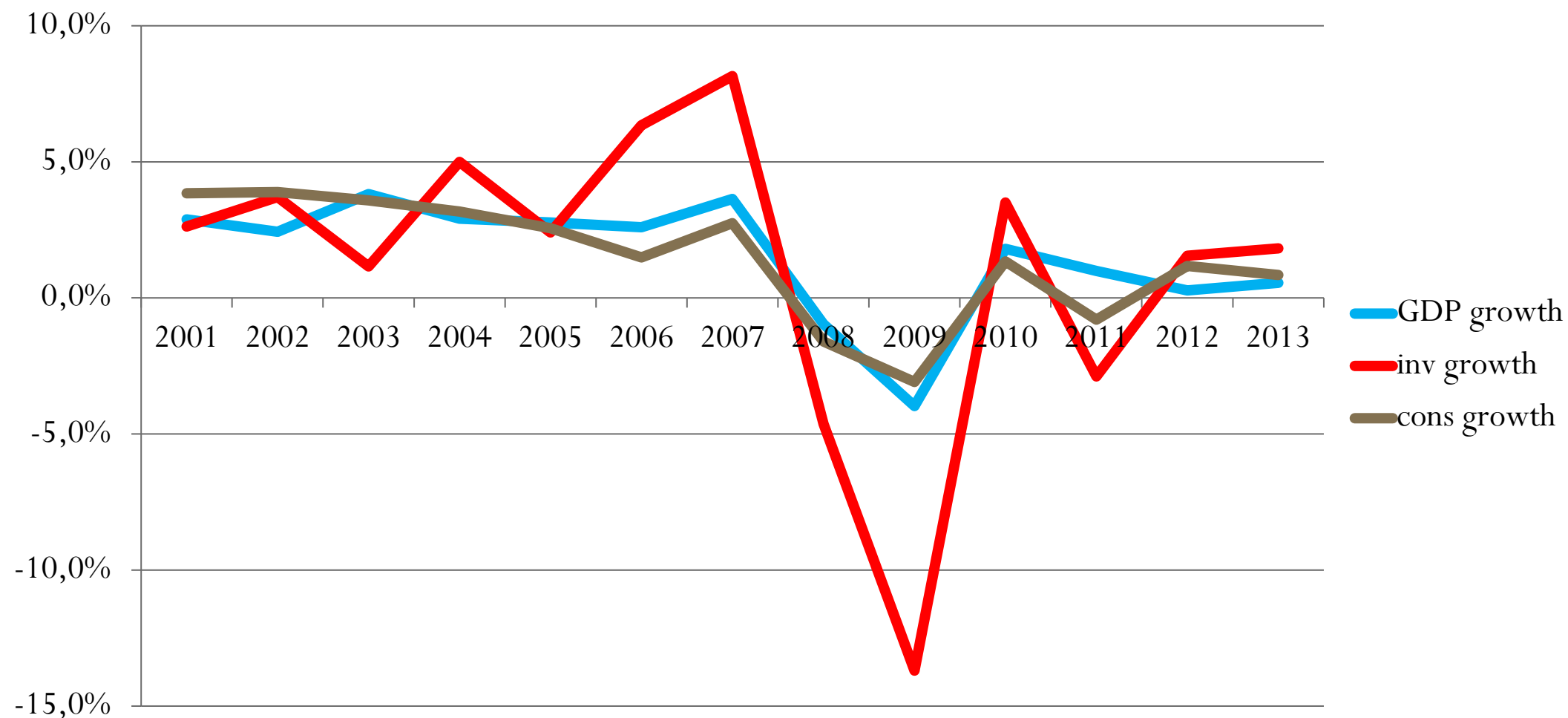
Foundations 2: Classes, social conflict and institutions

- PKE in political economy tradition: class analysis instead of methodological individualism
 - Social conflict: classes, gender, ... heterogeneity
 - Heterogeneity: both in expectation formation and in social class
 - Interactions with ABM, e.g. 'Schumpeter meet Keynes' models by Dosi et al 2010)
- PK models: often 3 classes: workers, capital, rentiers/finance
 - Capital hires labour; firing threat as disciplinary advise
 - Capitalists make investment decisions
 - Rentiers advance capital and receive interest + dividend payments
 - Have different consumption propensities
- Institutions regulate and mediate conflicts
- Inflation as the outcome of unresolved distributional conflicts

The goods market: Effective demand

- $I(Y) = S(Y)$ Y as adjusting variable
 - One equilibrium on goods market, where expenditures = income
- Investment $\rightarrow$ savings via multiplier process
 - Investment forward looking: expectations
 - Investment not constrained by saving, but possibly by the availability of finance
 - Investment expenditures are the single most important determinant of fluctuations in GDP
 - Have strong non-rational component; interest effects minor
- Saving: passive; different saving propensities according to income
 - Distribution matters (possibility of wage-led demand)
 - Possibility of wealth effects in consumption
- Private goods market equilibrium will in general not be at a full employment equilibrium
- Fiscal policy will be highly effective, in particular in times of financial crises
 - Recent empirical lit on regime dependent multipliers (Blanchard and Leigh 2013, Batini et al 2014)

UK: investment, consumption, GDP



The labour market: Involuntary unemployment

- Labour market is not self-adjusting; cannot serve as the anchor of the economy
- Wage contract are nominal contracts
- Wage cuts → reduction in consumption demand
 - → downward pressure on prices
 - → possibility of debt-deflation spiral
- Real wage cut: workers have higher MPC than capitalists
 - → real wage cut will be contractionary unless investment is very sensitive to profit margins
 - In demand regimes analysis: possibility of a *wage-led demand regime*
- Σ No (or weak) self adjustment towards full employment
- Labour market dragged along with goods market; strong hysteresis

Distribution and growth: demand regimes

- PKE rejects marginal productivity theory of income distribution
 - Distribution of income is determined by power relations (market power of firms, organisational strength of labour unions)
 - Level of income determined by macroeconomic conditions (animal spirits, investment expenditures)
- Demand regimes (Bhaduri and Marglin 1990): dual role of wages, synthesis of Keynes (demand) and Marxist (profitability) arguments
 - A cost for firms (Investment financed by credit and by profits)
 - Source of income for households (Workers consume most of their income)
- Higher wages will have
 - Positive effect on consumption
 - (possibly) negative effect on investment
 - Negative effect on net export
- Overall effect on demand can be positive or negative depending on relative size of these effects: wage-led as well as for profit-led demand regimes possible
- Similar argument can be made about supply: productivity growth can be wage-led or profit-led
- Extensions to include debt-driven and export-driven growth models (Lavoie and Stockhammer 2013)

Capital-labour conflict
(wage share)

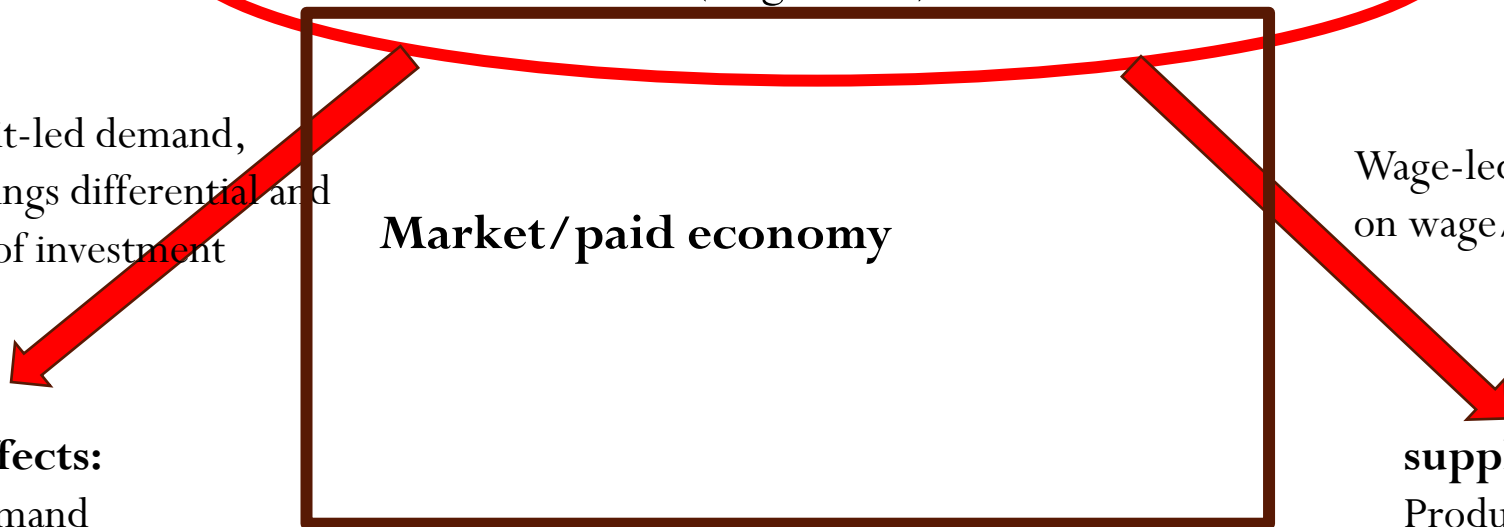
Wage-led or profit-led demand,
depending on savings differential and
profit-sensitivity of investment

Market/paid economy

Wage-led or profit-led supply, depending
on wage/profit-driven tech progress

Demand effects:
aggregate demand

supply effects:
Productivity growth

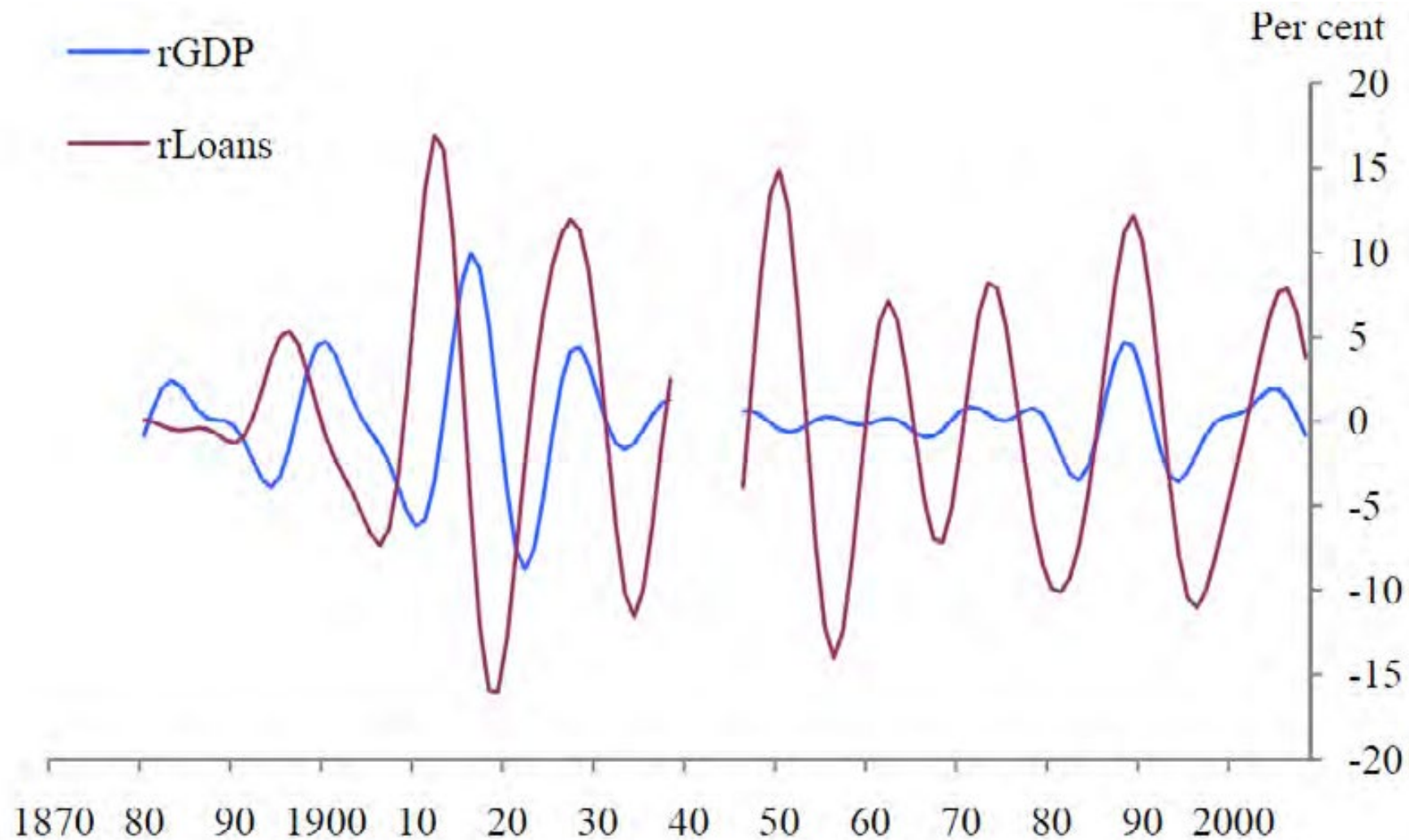


Financial markets

- Uncertainty → liquidity preference
 - Money held in times of increased uncertainty
- Endogenous money: credit → money
 - Money created as side effect of commercial banks' lending decisions
 - CB sets the interest (base) rate
 - Private financial institution mark up according to their liquidity preference (risk premium)
- Elastic finance allows for investment booms as well as for speculative asset price booms
- Financial markets prone to instability b/e forward looking (fundamental uncertainty)
 - → Debt cycles a la Minsky
 - International: emergence of currency hierarchy

UK: cycles in rLoans and rGDP

Source: Haldane (2012 BIS WP)



Endogeneous financial cycles

- Keynes: theory of financial crisis, collapse of confidence, rush to safety (liquidity preference)
- Hyman Minsky develops this into a theory of endogenous financial cycles
 - Mainstream (DSGE) financial crises due to exogenous shocks
- Debt cycles: during boom investors become willing to take more risk = higher leverage = system become more fragile → endogenous boom-bust cycles
 - Financial innovation in boom allows to increase leverage
 - Stockhammer, Calvert Jump, Cavallero and Kohler (2019): use minimalist (2D) Minsky model to test for endogenous cycles (oscillations): evidence for business debt-GDP cycles for USA and Australia
- speculative asset price cycles: momentum trader models
 - Ryoo (2016) as Minskyan macro model with speculative housing cycles

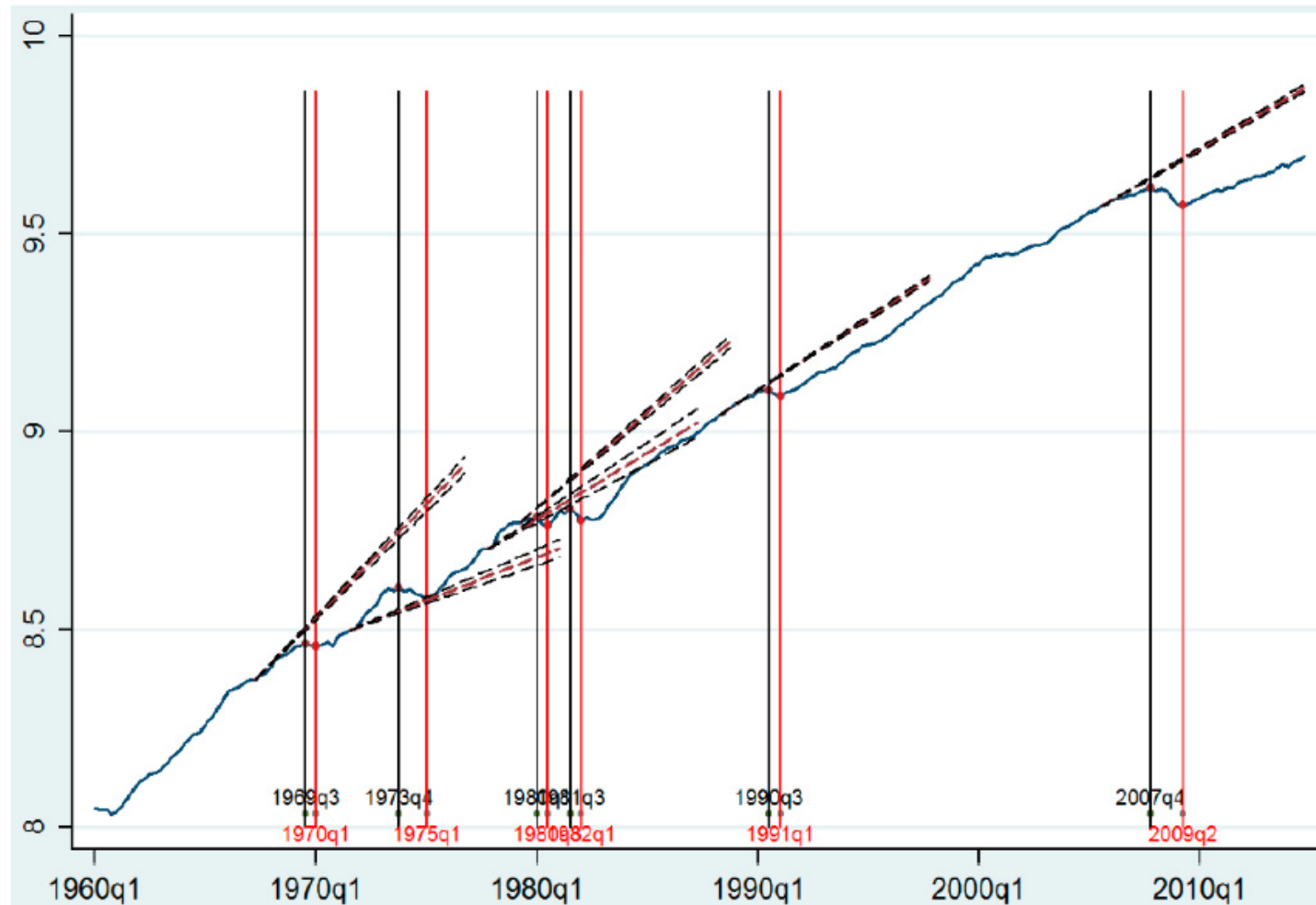
The supply side

- Economy demand-led even in long run
 - Does not deny role of supply-side factors in long run
- supply adjusts to demand shocks

Path-dependent growth

(Figure from Blanchard et al 2015)

Figure 3: United States –Evolution of log real GDP and Extrapolated Trends



The supply side

- Economy demand-led even in long run
 - From neoclassical perspective: “medium run”
- Independent investment function in growth models
- supply adjusts to demand shocks
 - **Unemployment hysteresis** → endogenous NAIRU; endogenous labour supply (LF participation, migration)
 - **Endogenous labour productivity**: induced technical change (possibility of wage-led productivity growth); dynamic returns to scale (learning by doing), Kaldor-Verdoorn effects
 - Note: all of these amplify multiplier effects
- **Latin-American Structuralism**: structural differences between core and periphery countries; need to import capital goods (different sectoral compositions, associated with different export and import elasticities)
 - Balance of Payment-constraint growth models (Thirlwall): long-term growth determined by X,M-elasticities (and thus international division of labour)

Towards gendered PK macro models?

- PKE late in integrating gender and care (in 2000s)
- PKE traditionally focuses on the demand and finance side of capitalist (market) economies
- Feminist Econ initially focus on methodology, on supply side and non-market production
 - Methodology PKE and feminist econ (SI in CJE 2010)
 - Gendered impact of the financial crisis
- Early work by Seguino (e.g. 2000) on female labour force and gender pay discrimination in Asian export-oriented growth models
- From 2010(ish) gendered macro models and that often takes a PK framing
- Braunstein et al (2011): a model with wage/profit-led (market) demand and care-led/gender inequality-led regimes; empirical analysis with institutional variables (Braunstein et al 2021)
- Onaran et al (2022): macro modelling behavioural close PK demand regimes analysis plus supply side and care economy

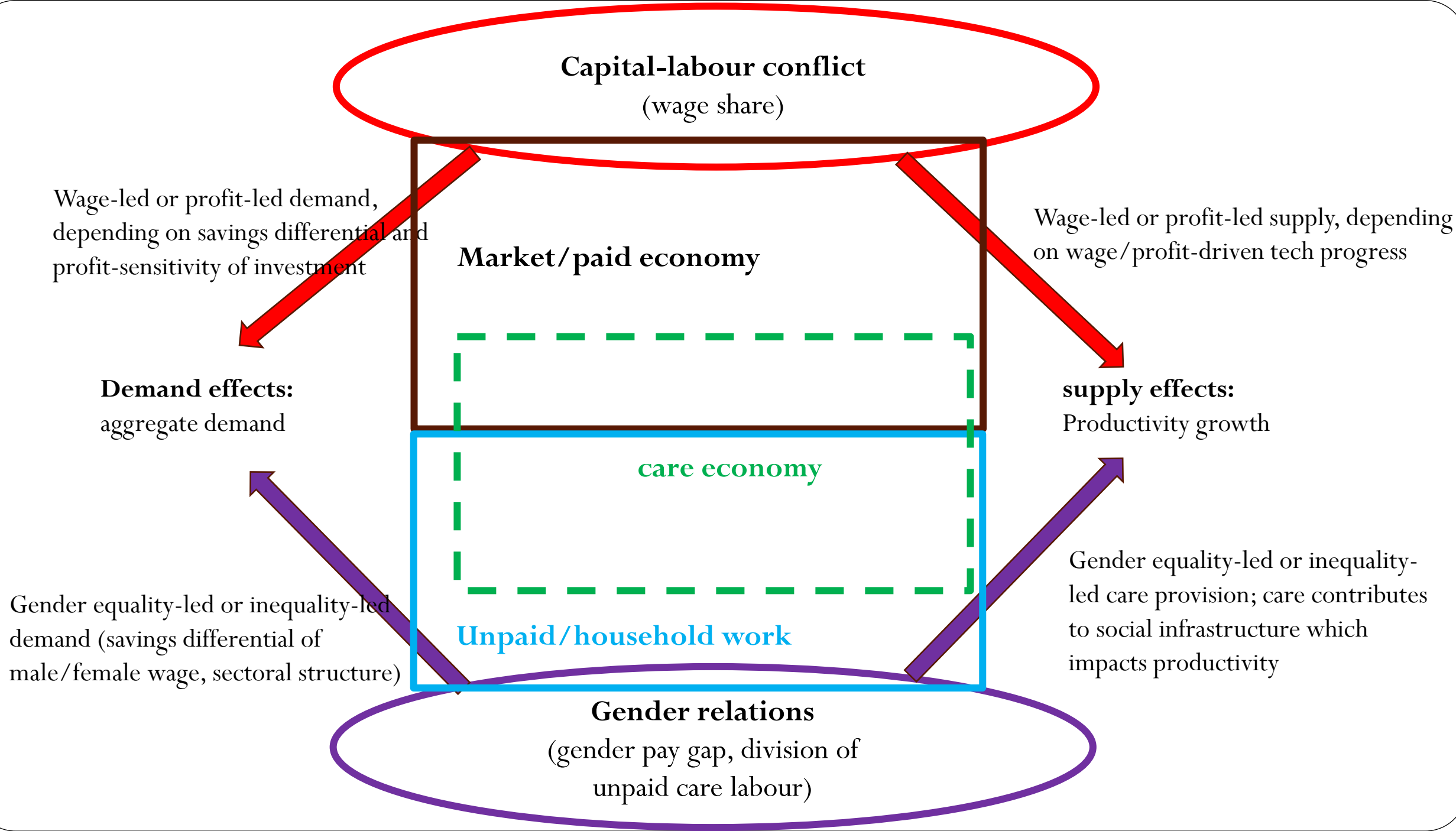


Table 1. Care regimes.

		Supply: distribution of social reproduction	
Demand: growth		Low road	High road
Care-led	Time squeeze Higher wages for women stimulate growth on the demand side, but squeezes care time on the supply side and lowers human capacities production. Growth is elusive or unstable.		Mutual Higher wages for women stimulate growth on the demand side, and increase human capacities production on the supply side. Growth and social reproduction reinforce one another.
Inequality-led	Exploitation Higher wages for women lower growth on the demand side, and squeeze time on the supply side and lower human capacities production. Growth is partly based on exploiting women’s labor.		Wage squeeze Higher wages for women lower growth on the demand side, but they enhance human capacities production on the supply side. Growth is elusive or unstable.

Source: Braunstein et al (2021)

Results: paradoxes of market economies

- Market economies do not gravitate towards full employment equilibrium
- **Paradox of thrift** (Keynes): increase in individual saving propensities can lead to decline in aggregate saving
- **Paradox of cost** (Kalecki): increase in wage can lead to increase in profits (“wage-led demand regime”)
- **Paradox of debt** (Steindl, Koo): attempt by firms (indebted units) can lead to depression and thus rising debt ratios
- **Paradox of tranquillity** (Minsky): stability breeds instability as it encourages more risky behaviour
- Endogenous financial cycles
- Long-lasting demand shocks, Possibility of ‘secular stagnation’

Current debates in PKE

1980s/1990s

- Endogenous money. Structuralists vs horizontalists
- Fundamental uncertainty & methodology
- Kaleckian models
- Balance of payments-constraint growth

1990s/2000s

- Demand regimes: wage/profit-led growth
- Financialisation
- SFC-modelling
- MMT

2010s/current

- Financial instability/Minsky
- Ecological PK macro
- Feminist PK macro
- Sraffian Supermultiplier (SSM)
- ‘International financial subordination’
- ‘growth models: PKE and Comparative Political Economy

New Keynesian Econ

- Estranged cousins of PKE
- reaction to New Classicals - **accept microfoundations** and often rational expectations
- but assumes (or derives) **imperfect markets** —
 - menu costs,
 - NAIRU, insider outsider models
 - credit rationing / asymmetric information
- in 1980s: many partial equilibrium models (Mankiw, Blanchard, Stiglitz, Fisher)
- 1990s: “New Consensus Model” (New Keynesian-Neoclassical Synthesis) and DSGE
 - short run/long run dichotomy, but with strict microfoundations
 - Pseudo IS curve: downwards sloping because of intertemporal consumption
- Since 2008: rediscovering PK arguments: hysteresis, financial instability

PK and mainstream economic policy

	Mainstream Policy Mix	Post Keynesian Policy Mix
Overall aim	Efficiency (minimal interference in markets)	Full employment
fiscal policy	Balanced budgets ('sound fiscal policy')	Countercyclical fiscal policy to ensure <i>full employment</i>
Monetary policy	Inflation targeting	Has to support growth; In recession with debt hangover: higher inflation to simplify deleveraging
Labour market	Encourage 'labour market flexibility' Wage as a cost factor	Institution building Wages as source of demand
Financial market	financial liberalisation, trusts efficiency of financial markets	Regulation has to 'lean against the wind' (macroprudential policies)

PKE – wrapping up

- foundations
 - Rejects representative agent optimising microfoundations for macro
 - Fundament uncertainty + sociological/class-analytic foundations
- Macroeconomics
 - Investment → savings
 - Involuntary unemployment
 - Credit → money
 - Financial instability: endogenous financial cycles
- Long-lasting demand shocks, possibility of ‘secular stagnation’
- Gendered PK macro models
- Need active fiscal policy, monetary policy to lean against financial cycle

Reading suggestions

classics

- Keynes: General Theory of Employment, Interest and Money
- Kalecki: Theory of Economic Dynamics
- Robinson: Accumulation of Capital
- Minsky: Stabilizing an Unstable Economy

Introductions, surveys, history

- Lavoie: Introduction to Post Keynesian Economics
- Hein & Stockhammer: A New Guide to Keynesian Macroeconomics and Economic Policies
- King: History of Post Keynesian Economics

Appendix

Reserve slides

	PKE	Marxian econ
<i>scope</i>	Economic theory	Part of richer, interdisciplinary project (Historical Materialism)
<i>Demand</i>	Effective demand	Often assumes Say's law; demand ('realisation crisis') only in short run
<i>Production</i>	Little to say to production	Production as labour process
<i>Class analysis</i>	classes have different consumption propensities; only capitalists make investment decisions	Class struggle at site of production Class struggle -> theory of state
<i>Money & finance</i>	Money is created by banks as side effect of lending Money to deal with uncertainty	Commodity theory of money: money is produced commodity
<i>unemployment</i>	Lack of effective demand; no tendency to full employment	Industrial reserve army necessary to discipline workers
<i>policy</i>	Normative: full employment policy; can also benefit capital	Reform futile within the capitalist system

PK: development and streams

- 1950s + 60s: Keynes in the long run – distribution and growth;
 - Capital Controversies;
 - critique of neoclassical-Keynesian Synthesis (ISLM etc)
 - Where? Cambridge
- 70s + after: formation of PK school (journals); spreading out
 - Where? Lost Cambridge -> spreading out (USA, continental Eu..)
 - Conflict inflation; endogenous money
 - Shift towards short/medium run analysis (Kaleckian models): distribution and demand, wage-led growth
 - Financial instability (Minsky)
 - More on economic policy, more empirical
- Streams
 - Sraffians: long run, distribution, technology and prices
 - Monetary Keynesians (incl. Minsky): uncertainty, money, short term
 - Kaleckians: social conflict, distribution, demand; short/medium term
 - Various other (often narrower streams): BoPC growth, SFC, MMT ...

Neoclassical vs Keynesian theory

	Neoclassical theory	Keynesian theory
Key concepts	Rational behaviour, equilibrium	Effective demand, 'animal spirits'
Behaviour	Rational behaviour by selfish individuals	'animal spirits' (non-rational behaviour) and conventional
Markets	Market clearing ← price adjustment	Some markets don't clear
Money	Classical dichotomy (money is neutral)	Endogenous money creation Endogenous financial instability
unemployment	Voluntary or due to rigidities	Involuntary, due to lack of demand on goods markets
policy	Laissez faire: markets are self-regulating and gov't should not intervene	market economies are unstable and result in unemployment → gov't should intervene

Schools of thought in macroeconomics

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graph TD; A[Schools of thought in macroeconomics] --> B[Marx]; A --> C[Keynes]; A --> D[neoclassical]; C --> E[Post-keynesians]; C --> F[Synthesis Keynesians]; F --> G[New Keynesians]; D --> H["New Classscial Econ<br/>Monetarism<br/>Rational Expectations<br/>RBC"]
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Marx

Keynes

neoclassical

Post-
keynesians

Synthesis
Keynesians

New
Keynesians

New
Classscial
Econ

Monetarism
Rational Expectations
RBC