Spanish Business Cycle Dating Committee
of the Spanish Economic Association

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SEMINARIO INTERNACIONAL SOBRE FECHADO DE LOS CICLOS ECONÓMICOS

CIDE, CIUDAD DE MÉXICO, 30 Y 31 DE OCTUBRE 2019

OUTLINE

1. WHAT WE DO AT THE SPANISH BC DATING COMMITTEE (COMITÉ DE FECHADO – CF)

2. ON DATING BUSINESS CYCLES TURNING POINTS

3. ON BC DATING COMMITTEES

1. WHAT WE DO AT CF

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First official dating of the Spanish BC.

Launched in April 2015 by the Spanish Economic Association http://asesec.org/CFCweb/en/

We provide:

1. **Historical dating of the Spanish BC**: quarterly frequency, 1970Q1 onwards, analyzing many series (not only GDP). Planned monthly frequency.

2. **Data and methodology** available on the web page. Also FAQs.

3. **A monthly index of economic activity** is provided and updated each month as a **real-time indicator** of the state of the economy.

1. WHAT WE DO AT CF

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Producto Interior Bruto de España

1970T1-2019T2

Fuente: Comité de Fechado del Ciclo Económico Español.
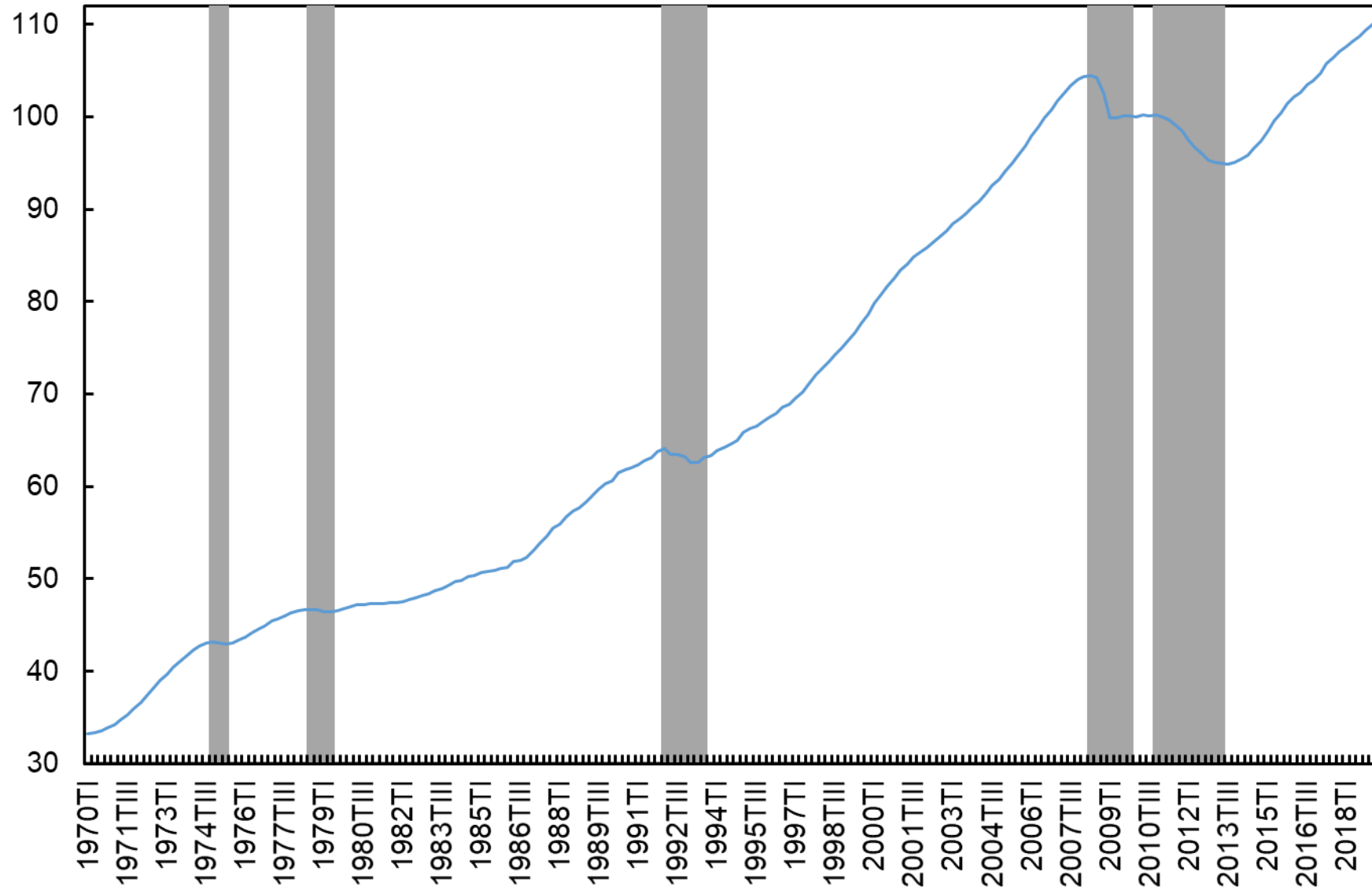
1. WHAT WE DO AT CF

- **HISTORICAL DATING OF TURNING POINTS** of the Spanish business cycle, in the same spirit as those of the CEPR and the NBER.

PEAK	VALLEY	LENGTH OF RECESSION	LENGTH OF EXPANSION	EXPLANATION
1974Q4	1975Q2	3 Quarters	12 Quarters	The Oil recessions
1978Q3	1979Q2	4 Quarters	50 Quarters	
1992Q1	1993Q3	7 Quarters	58 Quarters	The European crisis
2008Q2	2009Q4	7 Quarters	3 Quarters	The double recession
2010Q4	2013Q2	11 Quarters	-	

Notes: Data on Quarterly National Accounts by the Instituto Nacional de Estadística (INE) available from 1970Q1. Data from 1995 based on the new 2010 base of the Spanish National Accounts, following SEC-2010. Peak and trough are included in the duration of the recession. Both are excluded from expansions.

- **METHOD**: Two consecutive drops in GDP do not make a recession: a <u>general and sustained </u>decline in economic activity is required. This definition does not rule out that some sectors of the economy may be experiencing economic growth

  ➔ Importance of monitoring a wide range of time series from different sectors.

1. WHAT WE DO AT CF

- **DATA:** Not only GDP, also a breakdown by sector of activity, by demand components, and labor market indicators. We track multiple indicators to resolve timing conflicts between alternative indicators and to improve the precision of the dating.

- An example: LAST RECESSION. We dated two separate and consecutive recessions, instead of a single long recession, due to the different behaviour of different sectors in the economy (Great Recession and Soveign Debt crisis).

GDP

Recession starts 2008q2   2008q2 = 100

Peak: 2008q2

Peak: 2010q4
Value: 95.88

Trough: 2009q4
Value: 95.38

Trough: 2013q2
Value: 90.69

Fuente: Contabilidad Nacional Trimestral de España
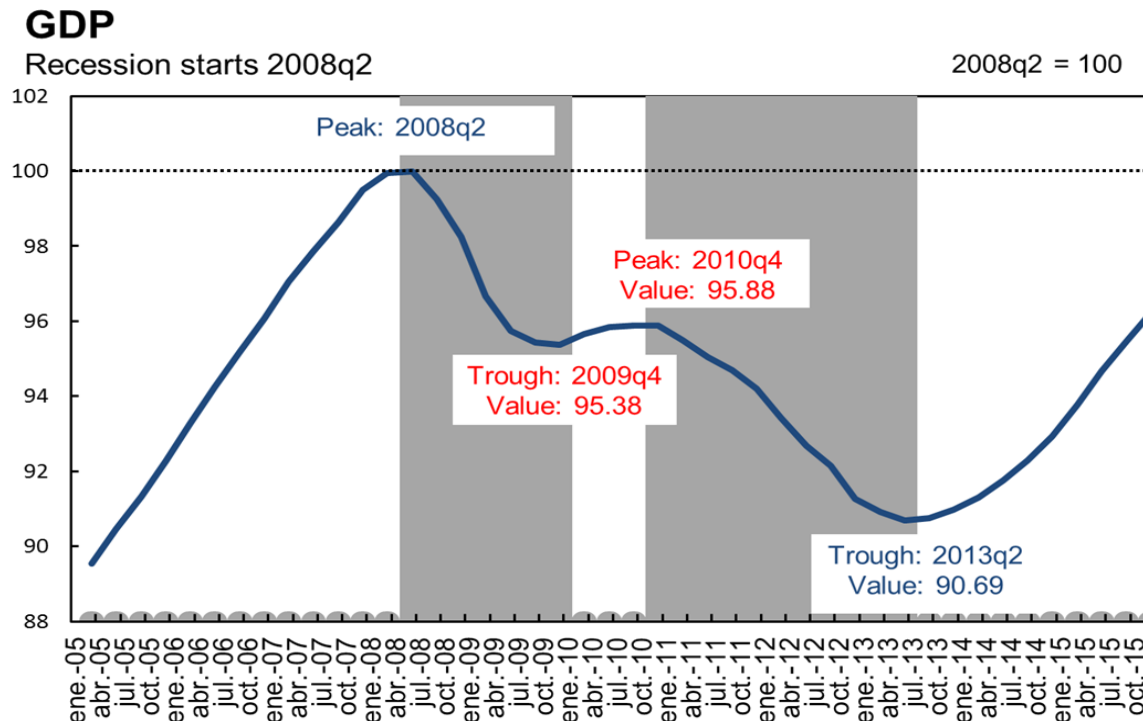
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Activity (GVA) and employment in industry and services

2008q2 = 100

GVA Services
Empl. Services
GVA Industry
Empl. Industry
Total Employmnent
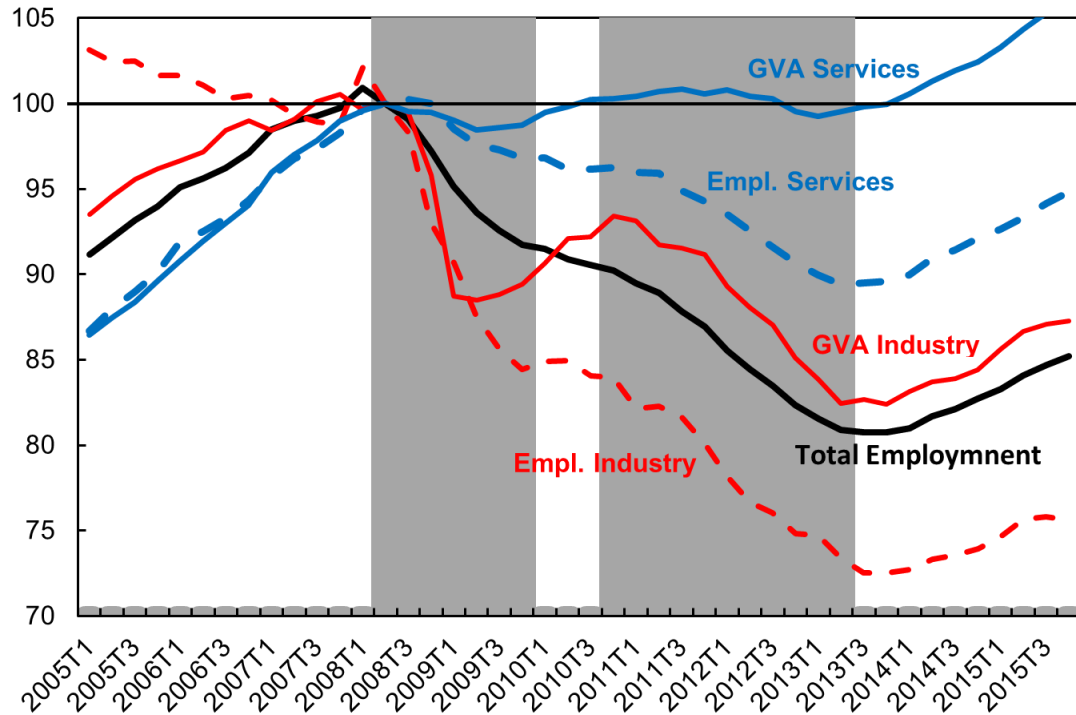
Spanish Economy in 2015Q2
2008T2 = 100

Exports
GDP
Private Consumption
Business Investment
Investment in Construction
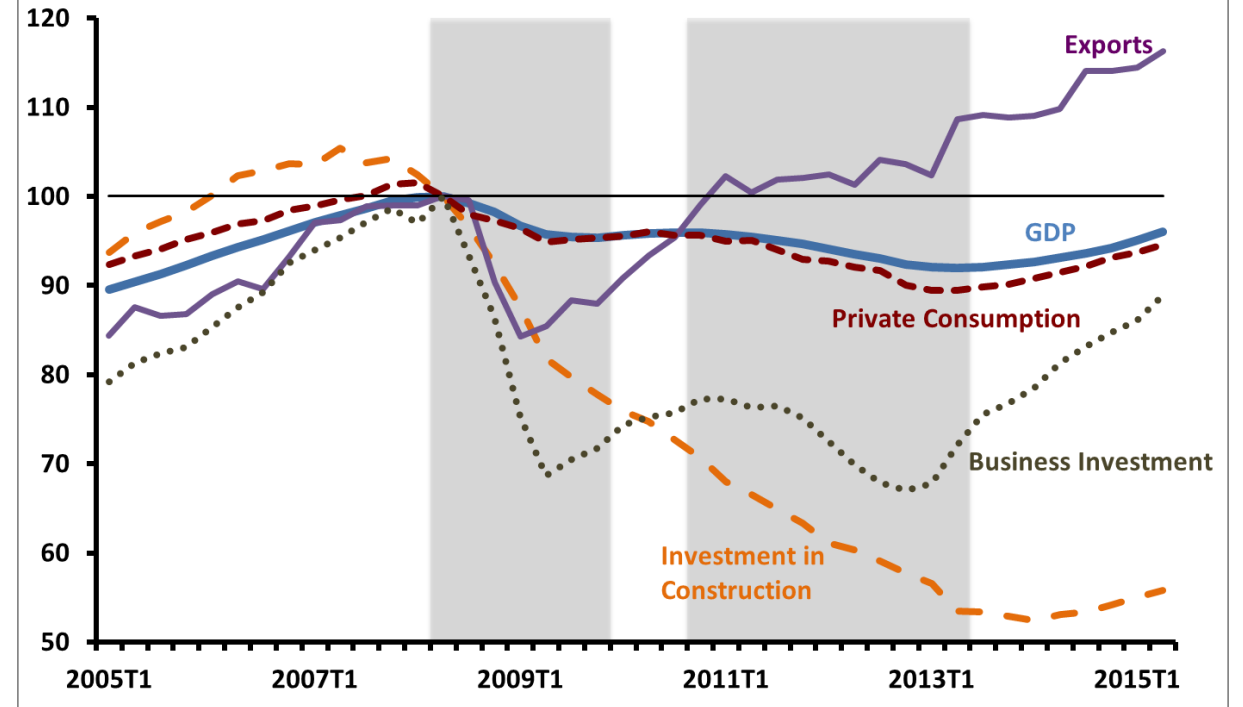
- Both data revisions and possible transitory fluctuations which do not mean a phase shift result in a <u>delay in the dating</u> procedure and in the <u>difficulty of forecasting turning points.</u>

- **QNA REVISIONS** may be large => initial dating of the end of the double recession was provisional; a large revision in late 2015 of anual and quarterly growth rates since 2011q1!

GDP growth rates
anual rates (lhs) and quarterly rates (rhs)
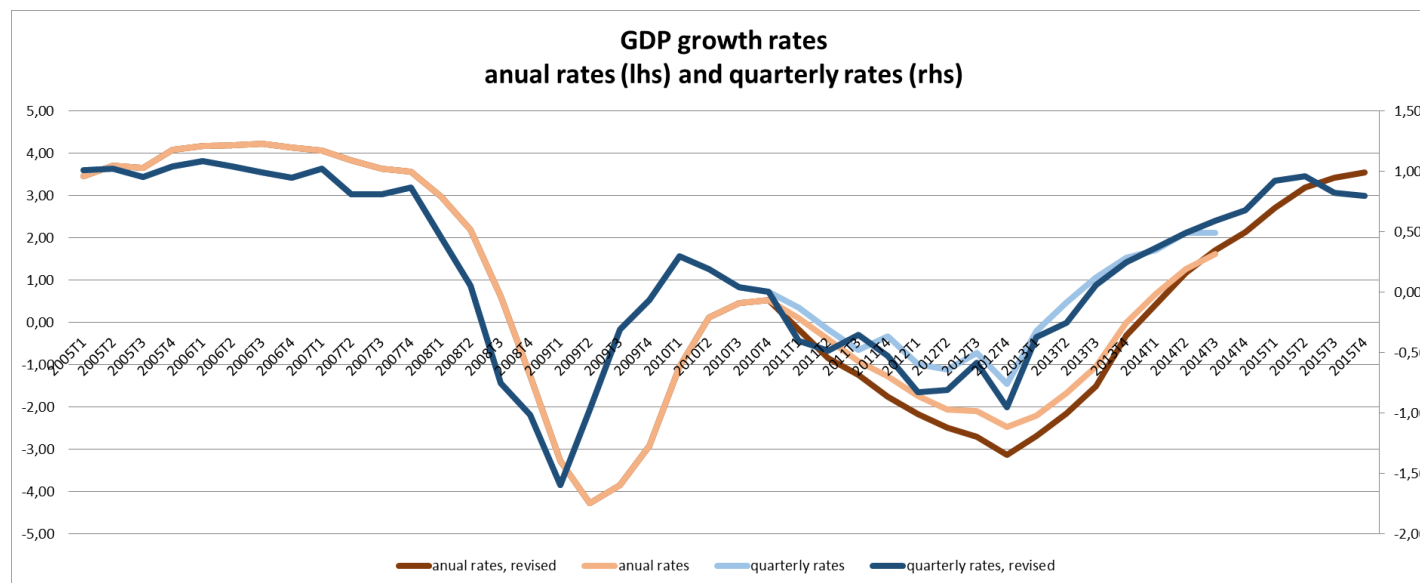
1. WHAT WE DO AT CF

- Given the delay in the dating (data revisions, possible false changes in cyclical phase,…) we provide a **real-time indication of the state of the economy: THE CF INDEX**. A mixed-frequencies Dynamic Factor Model, based on Camacho, Pérez-Quirós and Poncela (2013).

- The index extracts the signals from a wide set of economic indicators. It does not determinte the exact dating. Readings above zero are usually associated with periods of expansion, negative readings with periods of recession.

Indicador CF / CF Activity index frente a Fecha (mes) / Date (month)

Fecha (mes) / Date (month)

Spanish Economic Association (2015), "CF Index of Economic Activity", Spanish Business Cycle Dating Committee
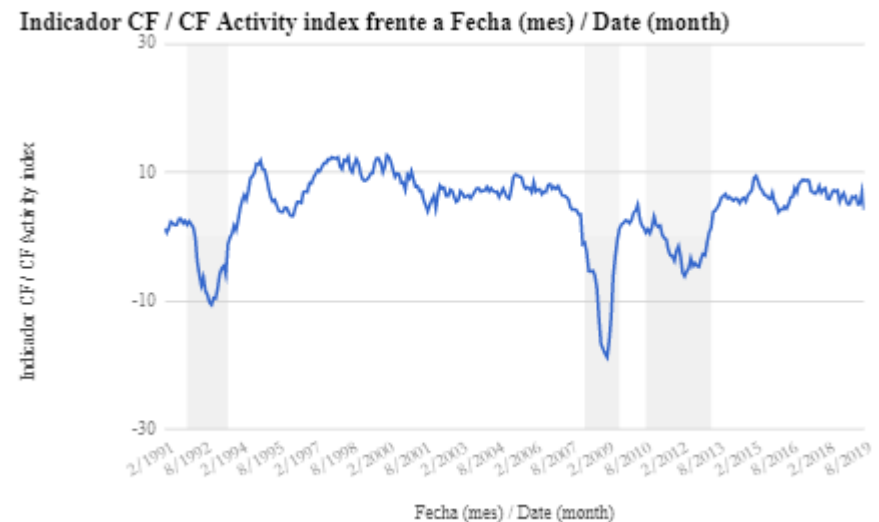
1. WHAT WE DO AT CF

- **What next?**
  Ongoing expansion in Spain. Not immune to developments in neighbouring countries → close monitoring
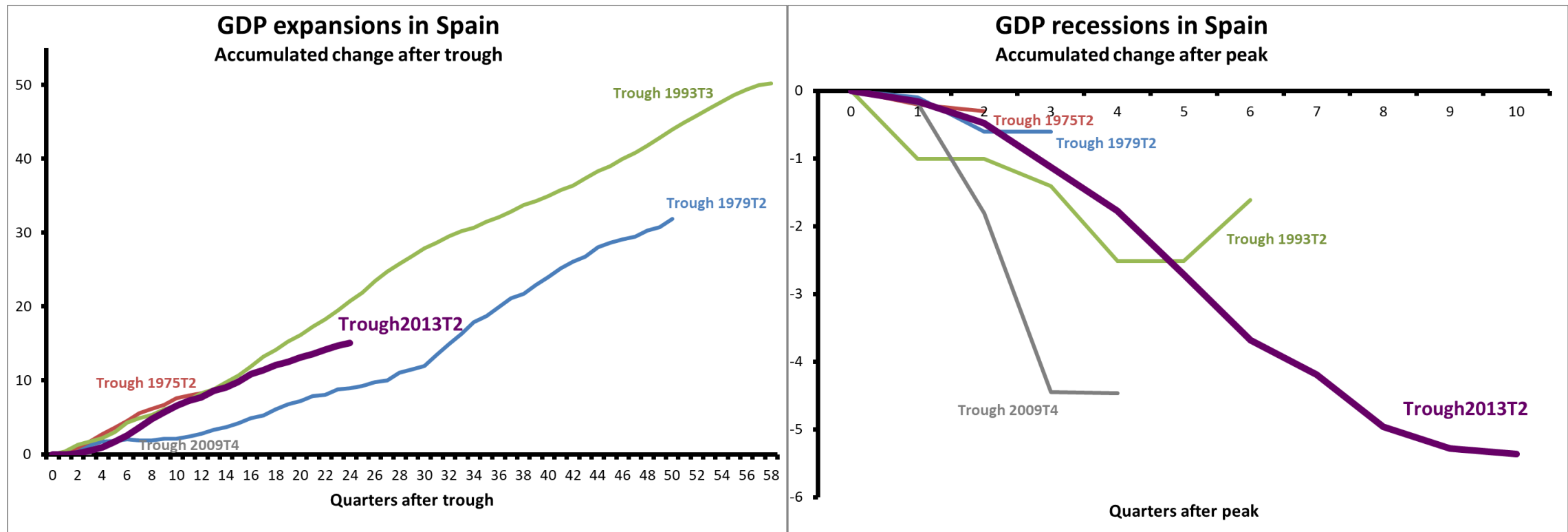
GDP expansions in Spain
Accumulated change after trough

GDP recessions in Spain
Accumulated change after peak

OUTLINE

1. WHAT WE DO AT THE SPANISH CF

2. ON DATING BUSINESS CYCLES TURNING POINTS

3. ON BC DATING COMMITTEES

2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

A. Why a BC chronology?

B. Why not dating BC with a statistical automatic method?

C. Why the delay in the dating?

D. How do we know that the dating is good?

2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

A. Why a BC chronology?

21/10/2019 16:46 - El Bundesbank asume que Alemania entró en recesión en el tercer trimestre

EUROPAPRESS

El Bundesbank, el banco central de Alemania, ha asumido que la locomotora europea ha podido entrar en recesión técnica en el tercer trimestre de 2019, cuando la institución anticipa que el PIB podría haber sufrido una ligera contracción, que se sumaría a la caída del 0,1% registrada entre los meses de abril y junio, aunque sostiene que este retroceso no evidencia un deterioro significativo y generalizado de la economía.

En su análisis, la entidad considera que la recaída del PIB alemán responde principalmente al debilitamiento de la industria orientada a la exportación, mientras que los sectores más enfocados a la economía doméstica continuaron estimulando el crecimiento, a la vez que continúa la buena situación del mercado laboral y las perspectivas de ingresos para los consumidores siguen siendo favorables.

"Los principales indicadores muestran actualmente pocos signos de una recuperación sostenida de la economía de exportación y de estabilización en el sector industrial", advierte la institución, para la que esta situación aumenta el riesgo de que la tendencia a la baja se transfiera en mayor medida a sectores domésticos.

Sin embargo, el banco central germano sostiene que "una recesión en el sentido de una disminución clara, amplia y sostenida en la gestión económica con capacidad infrautilizada aún no ha sido evidente".

Los pronósticos del Bundesbank se suman a una serie de instituciones que anticipan que Alemania entró en recesión en el tercer trimestre del año, incluyendo el prestigioso Instituto de Investigación Económica de Múnich (Ifo), que estima una contracción del 0,1% entre julio y septiembre.

A su vez, el Instituto de la Economía Mundial de Kiel (IfW, por sus siglas en alemán) prevé que la contracción del PIB alemán en el tercer trimestre será del 0,3%, tras la caída del 0,1% en el segundo trimestre, mientras que el Instituto de Investigación Económica de Alemania (DIW) contempla una contracción de la actividad del 0,2% entre julio y septiembre.

2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

A. Why a BC chronology?

The economy behaves differently in recessions than expansions: Recessions are usually shorter-lived but with rapid declines in output whereas expansions usually last longer and exhibit more moderate rates of growth. The interaction bewteen agents and sectors in the economy and across economies is different in recessions than expansions ➔ **Need of a reference dating of the business cycle** for:

(a) the academic community to analyze the different behaviour of the economy across BC phases,

(b) policymakers to design adecuate economic policy responses.

Main objective of a BC chronology: Provide a reference chronology to stardardize economic research.

Target audience: academic community, goverments, central banks, investors, any economic agent interested in the dynamics of the business cycle.

2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

B. Why not dating BC with a statistical automatic method?

Many different statistical tools available (from Bry-Boschan to cluster analysis)

1. None is problem-free

2. None can be applied blindly to all countries. Adaptation to each country's characteristics:
   - composition of economic activity → different series to monitor
   - How trend changes align across the different aggregate and disaggregate series, how the different economic sectors are connected in each economy → not one size fits all
   - Statistical resources → different set of series measured with the sufficient quality

3. Each technique could yield a different chronology, they all should be combined into a final one.

Solving all 3 requires judgement, best provided by independent qualified scientific experts.

2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

B. Why not dating BC with a statistical automatic method?

Data uncertainty adds to method uncertainty: expert judgement is needed.

Examples:

✓ <u>last double recession in Spain</u>. We dated two separate and consecutive recessions, instead of a single long recession, due to the different behaviour of different sectors in the economy.

Activity (GVA) and employment in industry and services

Spanish Economy in 2015Q2

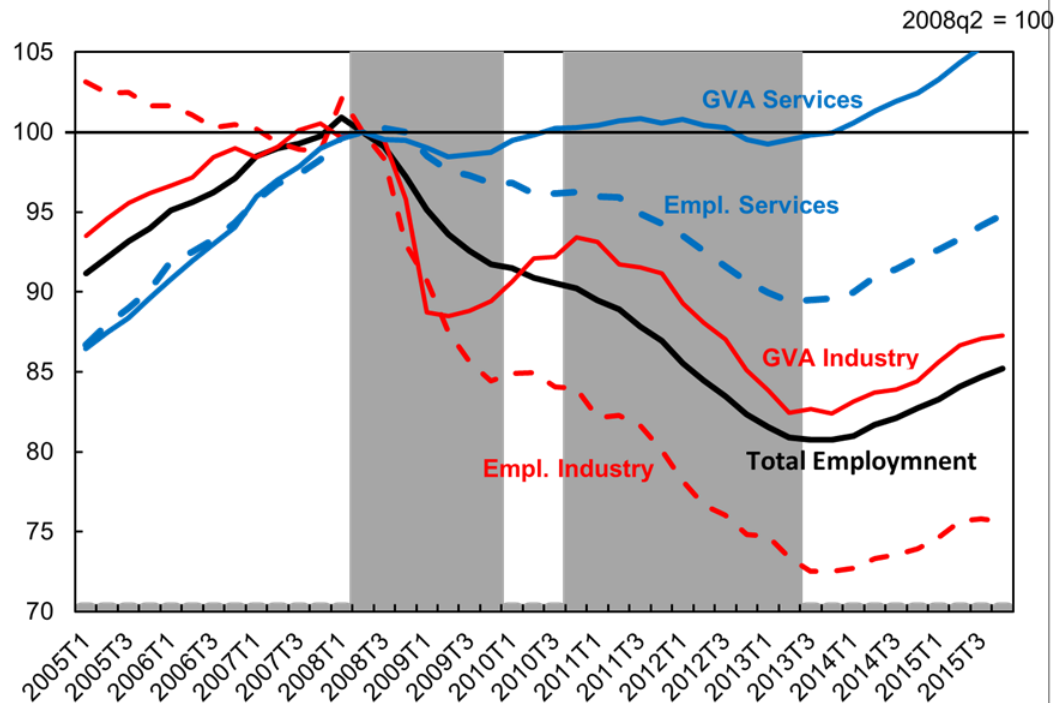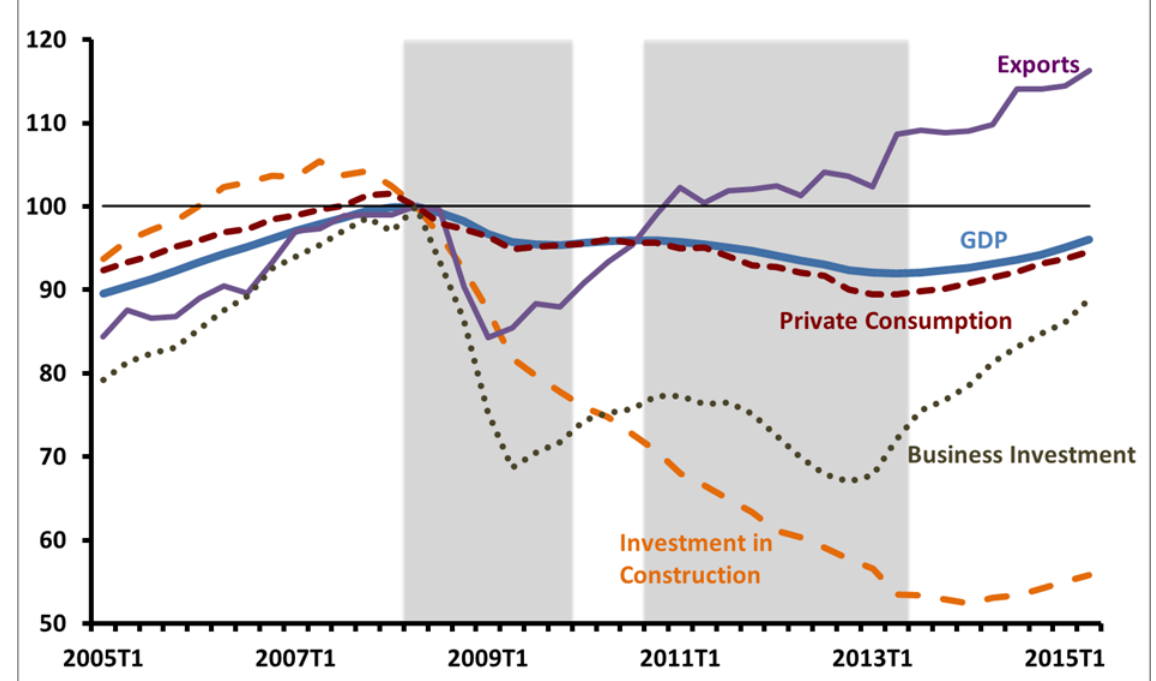# 2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

B. Why not dating BC with a statistical automatic method?

Data uncertainty adds to method uncertainty: expert judgement is needed.

Examples:

✓ https://admin.nber.org/cycles/main.html "The Committee applies its judgment ... and has no fixed rule to determine whether a contraction is only a short interruption of an expansion, or an expansion is only a short interruption of a contraction. The most recent example of such a judgment that was less than obvious was in 1980-1982, when the Committee determined that the contraction that began in 1981 was not a continuation of the one that began in 1980, but rather a separate full recession."

C. Why the delay in the dating?

The Spanish CF takes about one and a half to two years to date turning points.

- Sometimes there are **transitory fluctuations** which do not mean a phase shift, resulting in added difficulty and delay in the dating of BC turning points → Expert judgement needed.

C. Why the delay in the dating?

- **Main reason** for the delay in BC dating: **DATA REVISIONS.** Quarterly National Accounts may be heavily revised long after the date. Examples:

✓ Initial dating of the end of the double recession in Spain was provisional. The committee confirmed it in 2016 after a large revision in late 2015 of anual and quarterly growth rates since 2011q1.

GDP growth rates
anual rates (lhs) and quarterly rates (rhs)
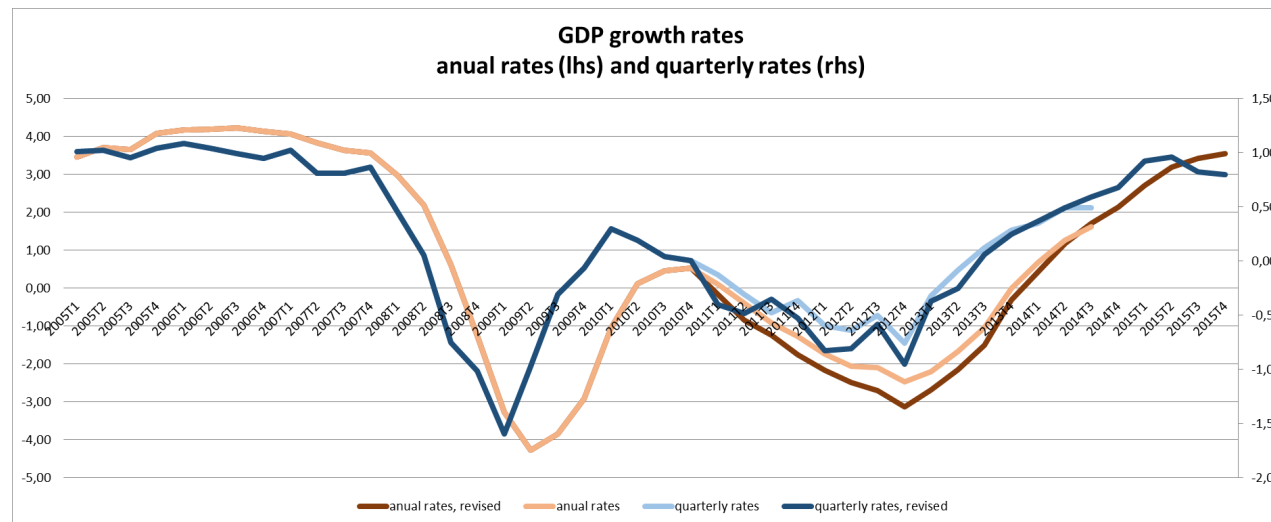
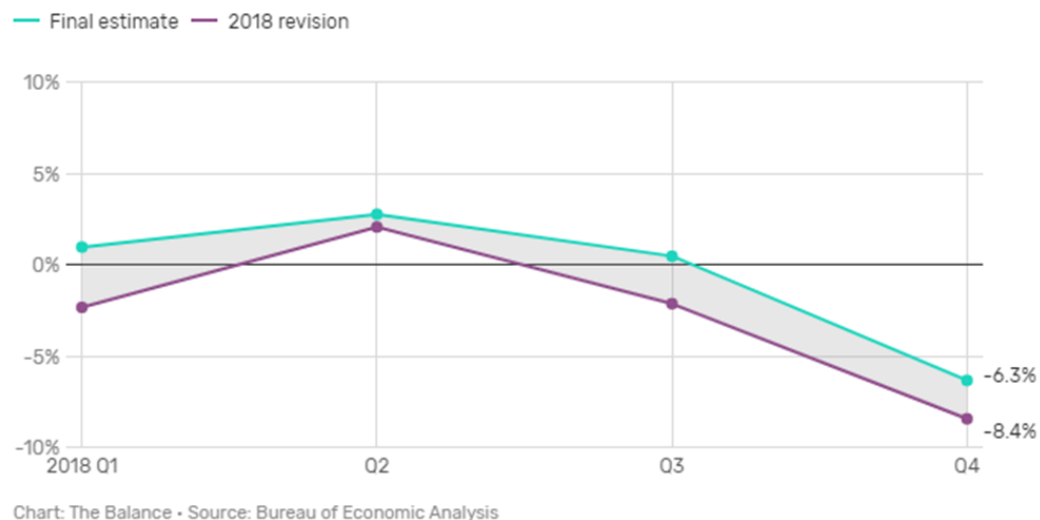# 2. ON DATING BUSINESS CYCLES: SCIENTIFIC ASPECTS

C. Why the delay in the dating?

- **DATA REVISIONS.** Examples:

- ✓ Series of 2008 GDP growth updates in the US. https://www.thebalance.com/2008-gdp-growth-updates-by-quarter-3305542

Period	2008	Q1	Q2	Q3	Q4
Advance Estimate	1.3%	0.6%	1.9%	-0.3%	-3.8%
Second Estimate	1.1%	0.9%	3.3%	-0.5%	-6.1%
Final Estimate	1.1%	1.0%	2.8%	0.5%	-6.3%
2009 Revision	0.4%	1.0%	1.5%	-2.7%	-5.4%
2010 Revision	0%	-0.7%	-1.8%	-4.0%	-6.8%
2011 Revision	-0.3%	-1.8%	1.3%	-3.7%	-8.9%
2013 Revision	-0.3%	-1.8%	1.3%	-2.0%	-8.3%
2015 Revision	-0.3%	-2.7%	2.0%	-1.9%	-8.2%
2018 Revision	-0.1%	-2.3%	2.1%	-2.1%	-8.4%

Chart: The Balance • Source: Bureau of Economic Analysis

D. How do we know that the dating is good?

We don't.

But we can use several methods to try to know at our best. See Berge and Jordà (2011) "Evaluating the Classification of Economic Activity into Recessions and Expansions", *AEJ:Macroeconomics*

The Spanish CF plans to apply Camacho et al. (2019) "date then aggregate" approach (see Harding and Pagan 2006, Stock and Watson 2010, 2014) to the monthly series of our CF Activity Index. We could compare the resulting chronology at monthy frequency with a more traditional "aggregate then date" approach.

Camacho, Gadea and Gómez (2019) "A New Approach to Dating the Reference Cycle", Banco de España WP.

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3. ON BC DATING COMMITTEES: SOCIAL AND INSTITUTIONAL ASPECTS OF DATING BUSINESS CYCLES

A. Why a BC dating committee?
B. What type of members?
C. Governance of the committee

A. Why a BC dating committee?

A single reference chronology of the business cycle of an economy needs to be accepted by the scientific community and economic agents in general to be successful.

To achieve this goal, it needs to be set by an **independent authority, politically neutral and preferably scientific**.

➢ <u>Neutrality is key</u>: The objective of the Committee, providing a reference BC chronology, is of scientific and social interest.

➢ <u>Transparency</u> is crucial to guarantee the credibility of the Committee's decisions. Good practice: publish the data, methods, the rationale behind each truning point dated, etc.

➢ Good examples are the <u>main academic associations in economics</u>: NBER for the US, CEPR & EABC Network for the Euro Area, Asociación Española de Economía for Spain.

B. What type of members?

Committee members nominated by the independent, neutral and preferably scientific authority that sets the committee.

Members will provide the expert judgement on the data, on the dating methods, on the workings of the economy, on how best to communicate the findings to the public and to the academic community, etc.

→ need to be recognized members of the scientific community and have no political aim.

→ good communication skills also required within the committee

C. Governance

The Spanish BC dating committee works **democratically**: decisions on the dating, on communication, on the work of the committee, etc. are discussed jointly by all members and taken by consensus → requires some good leadership.

Number of members: not too large but neither too small. NBER 8 members, CEPR 5, CF Spain 6.

Rotation: no rules. Could be advisable a staggered renewal where each member would be so for 3-4 years. CF Spain: Spanish Economic Association nominated all members since 2013, and added the new President in 2016.

THANK YOU VERY MUCH FOR YOUR ATTENTION