

## De Pace (2008). Currency Union, Free-Trade Areas, and Business Cycle Synchronization. Tables (Extended)

COUNTRIES IN THE EUROPEAN UNION (1957) AND IN THE EUROPEAN ECONOMIC AND MONETARY UNION (01.01.1999)	
<i>Belgium (BE)</i>	<i>Ireland (IE)</i> <sup>(a)</sup>
<i>Germany (DE)</i>	<i>Greece (GR)</i> <sup>(b) (e)</sup>
<i>France (FR)</i>	<i>Spain (ES)</i> <sup>(c)</sup>
<i>Italy (IT)</i>	<i>Portugal (PT)</i> <sup>(c)</sup>
<i>Luxembourg (LUX)</i>	<i>Austria (AT)</i> <sup>(d)</sup>
<i>Netherlands (NE)</i>	<i>Finland (FI)</i> <sup>(d)</sup>
OTHER COUNTRIES IN THE EUROPEAN UNION AND CURRENT CURRENCY REGIMES	
<i>Denmark (DK)</i> <sup>(a)</sup>	Peg to the Euro through ERM II* (since 01.01.1999)
<i>Sweden (SE)</i> <sup>(d)</sup>	Managed Float (since 11.1992) - Not in ERM II*
<i>United Kingdom (UK)</i> <sup>(a)</sup>	Managed Float - Not in ERM II*
COUNTRIES IN THE NORTH AMERICAN FREE TRADE AGREEMENT (01.1994) AND CURRENT CURRENCY REGIMES	
<i>Canada (CA)</i> <sup>(f)</sup>	Managed Float/Floating Exchange Rate
<i>Mexico (MEX)</i>	Managed Float
<i>USA (USA)</i> <sup>(f)</sup>	Managed Float/Floating Exchange Rate
COUNTRY WITH A LINKED EXCHANGE RATE SYSTEM WITH US DOLLAR (10.17.1983)	
<i>Hong Kong (HK)</i>	
<p><sup>(a)</sup>In the European Union since 1973. <sup>(b)</sup>In the European Union since 1981. <sup>(c)</sup>In the European Union since 1986. <sup>(d)</sup>In the European Union since 1995. <sup>(e)</sup>In the European Economic and Monetary Union since 01.01.2001. <sup>(f)</sup>In the Canada-US Free Trade Agreement since 01.1989. *European Exchange Rate Mechanism II</p>	

List of Countries

### Global Index - Weighted Average Correlation Changes

Cycle Measure - Filtering Method	EU	EMU	Core EU	Core EMU
Real GDP - HPMV (KF) (1991.4-2006.2)	0.187 u	0.141 u	0.347 u <sup>(1)</sup>	0.362 u <sup>(1)</sup>
Real GDP - HPMV (KS) (1991.4-2006.2)	0.243 u	0.105 u	0.341 u <sup>(1)</sup>	0.137 u <sup>(1)</sup>
Real GDP - Production Function (1) (1991.4-2006.2)	<b>0.524</b> <sup>(a)</sup> U	0.321 <sup>(a)</sup> u	<b>0.598</b> U	<b>0.413</b> U
Real GDP - Production Function (2) (1991.4-2006.2)	<b>0.455</b> <sup>(a)</sup> U	0.246 <sup>(a)</sup> u	<b>0.534</b> U	0.242 u
Real GDP - Growth (1991.2-2006.2)	0.062 u	0.089 u	0.198 u <sup>(2)</sup>	0.106 u <sup>(2)</sup>
Industrial Production Index - Growth (1) (1980.1-2007.1)	0.150 <sup>(c)</sup> u	0.103 <sup>(d)</sup> u	0.209 u	0.106 u
Industrial Production Index - Growth (2) (1991.2-2007.1)	0.011 u	0.054 <sup>(c)</sup> u	0.098 u	-0.044 d
Final Consumption Expenditure - HP (1991.1-2006.2)	0.137 u	0.016 u	0.356 u <sup>(3)</sup>	0.151 u <sup>(3)</sup>
Gross Fixed Capital Formation - HP (1991.1-2006.2)	0.136 u	0.076 u	0.118 u	-0.055 d
Trade Activity (Imports+Exports) - HP (1991.1-2006.2)	<b>0.315</b> (U)	0.232 u	0.258 u <sup>(4)</sup>	0.066 u <sup>(4)</sup>
Stock Market Index - Return <sup>(h)</sup> (1990.2-2006.11)	-0.032 <sup>(e)</sup> d	-0.058 <sup>(e)</sup> d	0.084 <sup>(f)</sup> u <sup>(5)</sup>	<b>0.102</b> <sup>(f)</sup> U

EU: AT, BE, DE, DK, ES, FI, FR, GR, IT, NE, UK. EMU: AT, BE, DE, ES, FI, FR, GR, IT, NE. Core EU: DE, ES, FR, IT, UK. Core EMU: DE, ES, FR, IT. Non-Core EU: AT, BE, DK, FI, GR, NE. Non-Core EMU: AT, BE, FI, GR, NE. DM Bloc + Finland: AT, BE, DE, DK, FI, NE. NAFTA: CA, MEX, USA. Note: Finland was not formally part of the Deutsche Marc (DM) Bloc. In computing global indices, however, we include it for its geographical proximity to the countries in the Bloc within the borders of the EU.

Breakpoint Date (Europe, Quarterly Data): 1998.4. Breakpoint Date (Europe, Monthly Data): 1998.12. Breakpoint Date (NAFTA, Quarterly Data): 1993.4. Breakpoint Date (NAFTA, Monthly Data): 1993.12.

Bootstrap Replications: 1500. Bootstrap Iterations: 750.

<sup>(a)</sup>Does not include: AT, FI, GR. <sup>(b)</sup>Does not include: AT. <sup>(c)</sup>Also includes: IE, LUX, PT, SE. <sup>(d)</sup>Also includes: IE, LUX, PT.

<sup>(e)</sup>Does not include: IT. Includes: IE. <sup>(f)</sup>Does not include: IT. <sup>(g)</sup>Also includes: IE. <sup>(h)</sup>Monthly data.

<sup>(1)</sup>1991.4-2006.3. <sup>(2)</sup>1991.2-2006.3. <sup>(3)</sup>1991.1-2007.1. <sup>(4)</sup>1991.1-2006.3. <sup>(5)</sup>1987.8-2006.11. <sup>(6)</sup>1980.4-2006.3. <sup>(7)</sup>1980.2-2006.3. <sup>(8)</sup>1980.2-2007.1. <sup>(9)</sup>1991.2-2007.1. <sup>(10)</sup>1980.1-2006.4. <sup>(11)</sup>1991.1-2006.2. <sup>(12)</sup>1981.1-2006.3. <sup>(13)</sup>1983.2-2006.11.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level.

### Weighted Average Correlation Changes (WACCs) (1)

**Global Index - Weighted Average Correlation Changes**

Cycle Measure - Filtering Method	Non-Core EU		Non-Core EMU		DM Bloc + Finland		NAFTA	
Real GDP - HPMV (KF) (1988.4-2006.2)	0.260	u	0.083	u	<b>0.465</b>	U <sup>(1)</sup>	0.181	u <sup>(6)</sup>
Real GDP - HPMV (KS) (1988.4-2006.2)	0.230	u	0.088	u	<b>0.341</b>	U <sup>(1)</sup>	0.262	u <sup>(6)</sup>
Real GDP - Production Function (1) (1991.4-2006.2)	---	-	---	-	<b>0.645<sup>(b)</sup></b>	U	---	-
Real GDP - Production Function (2) (1991.4-2006.2)	---	-	---	-	<b>0.572<sup>(b)</sup></b>	U	---	-
Real GDP - Growth (1988.2-2006.2)	0.035	u	-0.025	d	0.101	u <sup>(2)</sup>	-0.060	d <sup>(7)</sup>
Industrial Production Index - Growth (1) (1980.1-2007.1)	0.116 <sup>(c)</sup>	u	0.077 <sup>(d)</sup>	u	0.145	u	0.025	u <sup>(8)</sup>
Industrial Production Index - Growth (2) (1988.2-2007.1)	0.086 <sup>(c)</sup>	u	0.073 <sup>(c)</sup>	u	0.042	u <sup>(9)</sup>	---	-
Final Consumption Expenditure - HP (1988.1-2006.2)	-0.127	d	-0.207	d	0.125	u <sup>(3)</sup>	<b>0.522</b>	U <sup>(10)</sup>
Gross Fixed Capital Formation - HP (1988.1-2006.2)	<b>0.216</b>	U	0.165	u	<b>0.497</b>	U <sup>(11)</sup>	0.195	u <sup>(10)</sup>
Trade Activity (Imports+Exports) - HP (1988.1-2006.2)	<b>0.430</b>	U	<b>0.536</b>	U	<b>0.274</b>	(U) <sup>(4)</sup>	0.014	u <sup>(12)</sup>
Stock Market Index - Return <sup>(h)</sup> (1990.2-2006.11)	<b>-0.143<sup>(e)</sup></b>	D	<b>-0.159<sup>(e)</sup></b>	D	-0.086	d	-0.066	d <sup>(13)</sup>

EU: AT, BE, DE, DK, ES, FI, FR, GR, IT, NE, UK. EMU: AT, BE, DE, ES, FI, FR, GR, IT, NE. Core EU: DE, ES, FR, IT, UK. Core EMU: DE, ES, FR, IT. Non-Core EU: AT, BE, DK, FI, GR, NE. Non-Core EMU: AT, BE, FI, GR, NE. DM Bloc + Finland: AT, BE, DE, DK, FI, NE. NAFTA: CA, MEX, USA. Note: Finland was not formally part of the Deutsche Marc (DM) Bloc. In computing global indices, however, we include it for its geographical proximity to the countries in the Bloc within the borders of the EU.

Breakpoint Date (Europe, Quarterly Data): 1998.4. Breakpoint Date (Europe, Monthly Data): 1998.12. Breakpoint Date (NAFTA, Quarterly Data): 1993.4. Breakpoint Date (NAFTA, Monthly Data): 1993.12.

Bootstrap Replications: 1500. Bootstrap Iterations: 750.

<sup>(a)</sup>Does not include: AT, FI, GR. <sup>(b)</sup>Does not include: AT. <sup>(c)</sup>Also includes: IE, LUX, PT, SE. <sup>(d)</sup>Also includes: IE, LUX, PT. <sup>(e)</sup>Does not include: IT. Includes: IE. <sup>(f)</sup>Does not include: IT. <sup>(g)</sup>Also includes: IE. <sup>(h)</sup>Monthly data.

<sup>(1)</sup>1991.4-2006.3. <sup>(2)</sup>1991.2-2006.3. <sup>(3)</sup>1991.1-2007.1. <sup>(4)</sup>1991.1-2006.3. <sup>(5)</sup>1987.8-2006.11. <sup>(6)</sup>1980.4-2006.3. <sup>(7)</sup>1980.2-2006.3. <sup>(8)</sup>1980.2-2007.1. <sup>(9)</sup>1991.2-2007.1. <sup>(10)</sup>1980.1-2006.4. <sup>(11)</sup>1991.1-2006.2. <sup>(12)</sup>1981.1-2006.3. <sup>(13)</sup>1983.2-2006.11.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied.

**Correlation Changes in bold:** significant at either 5% or 10% level.

Weighted Average Correlation Changes (WACCs) (2)

EU15 - Detrended Real GDP - HPMV (KF)

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK	UP	DOWN	Sign. UP	DOWN	Sign. DOWN	Total
AT	--												40	11	15	11	0	66
BE	u	--											60.6%	16.7%	22.7%	16.7%	0.0%	100.0%
DE	u	u	--															
DK	<b>(U)</b>	u	u	--														
ES	u	u	u	u	--													
FI	u	u	u	u	u	--												
FR	u	u	u	u	u	u	--											
GR	d	d	u	d	d	d	u	--										
IT	u	d	u	u	u	u	u	u	--									
NE	u	u	u	u	u	u	u	d	u	--								
SE	u	u	u	u	u	u	u	d	d	u	--							
UK	u	u	u	d	u	u	u	d	u	u	u	--						
													25	5	6	5	0	36
													69.4%	13.9%	16.7%	13.9%	0.0%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.593	0.000										
DE	0.346	0.307	0.000									
DK	<b>1.368</b>	<b>0.794</b>	0.128	0.000								
ES	0.450	0.098	<b>0.653</b>	0.322	0.000							
FI	<b>1.333</b>	0.328	0.827	<b>0.643</b>	0.099	0.000						
FR	0.256	0.072	0.691	0.574	0.216	0.180	0.000					
GR	-0.346	-0.126	0.089	-0.380	-0.081	-0.208	0.236	0.000				
IT	0.364	-0.119	<b>0.578</b>	0.267	0.105	0.068	0.197	0.179	0.000			
NE	<b>0.529</b>	0.398	<b>0.695</b>	<b>0.641</b>	0.158	<b>0.528</b>	0.360	-0.422	0.077	0.000		
SE	0.293	0.162	<b>0.607</b>	<b>0.721</b>	0.032	0.167	0.185	-0.406	-0.229	0.309	0.000	
UK	<b>1.319</b>	<b>0.667</b>	0.547	-0.120	0.080	0.051	<b>0.646</b>	-0.086	0.197	0.336	0.615	0.000

Samples (Quarterly Data). AT: 1988.4-2006.3; BE: 1980.4-2006.3; DE: 1991.4-2006.3; DK: 1977.4-2006.3; ES: 1980.4-2006.3; FI: 1975.4-2006.3; FR: 1978.4-2006.3; GR: 1975.4-2006.2; IT: 1980.4-2006.3; NE: 1977.4-2006.3; SE: 1993.4-2006.3; UK: 1975.4-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; **UP**: number of non-significantly positive correlation changes; **Sign. UP**: number of significantly positive correlation changes; **DOWN**: number of non-significantly negative correlation changes; **Sign. DOWN**: number of significantly negative correlation changes.

EU15 - Detrended Real GDP, HPMV (Kalman Filter) - Pairwise Correlation Changes

**EU15 - Detrended Real GDP - HPMV (KS)**

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK	UP	Sign. UP	DOWN	Sign. DOWN	Total
AT	--												33	15	15	3	66
BE	u	--											50.0%	22.7%	22.7%	4.5%	100.0%
DE	u	d	--														
DK	u	u	u	--													
ES	u	u	u	u	--												
FI	u	u	u	u	u	--											
FR	u	u	u	u	u	u	--										
GR	d	d	d	d	d	d	d	--									
IT	u	d	u	u	u	u	u	u	d	--							
NE	u	u	u	u	u	u	u	u	D	u	--						
SE	(U)	u	u	u	d	u	u	d	d	u	u	--					
UK	(U)	u	u	d	u	d	u	d	u	u	d	u	u	d	u	u	d
													22	4	8	2	36
													61.1%	11.1%	22.2%	5.6%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.515	0.000										
DE	0.196	-0.038	0.000									
DK	1.086	0.735	0.303	0.000								
ES	0.313	0.032	0.182	0.644	0.000							
FI	1.113	0.236	0.642	0.699	0.146	0.000						
FR	0.225	0.206	0.186	0.832	0.143	0.299	0.000					
GR	-0.301	-0.315	-0.202	-0.329	-0.183	-0.212	-0.005	0.000				
IT	0.202	-0.135	0.211	0.457	0.078	0.084	0.282	-0.178	0.000			
NE	0.378	0.309	0.283	0.603	0.397	0.502	0.516	-0.363	0.045	0.000		
SE	0.455	0.134	0.374	0.443	-0.011	0.329	0.119	-0.344	-0.275	0.450	0.000	
UK	1.097	0.608	0.380	-0.090	0.191	-0.031	0.740	-0.115	0.219	0.359	-0.116	0.000

**Samples (Quarterly Data)**, AT: 1988.4-2006.3; BE: 1980.4-2006.3; DE: 1991.4-2006.3; DK: 1977.4-2006.3; ES: 1980.4-2006.3; FR: 1975.4-2006.3; GR: 1975.4-2006.2; IT: 1980.4-2006.3; NE: 1977.4-2006.3; SE: 1993.4-2006.3; UK: 1975.4-2006.3.

**Breakpoint Date:** 1998.4.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; **UP:** number of non-significantly positive correlation changes; **Sign. UP:** number of significantly positive correlation changes; **DOWN:** number of non-significantly negative correlation changes; **Sign. DOWN:** number of significantly negative correlation changes.

**EU15 - Detrended Real GDP, HPMV (Kalman Smoother) - Pairwise Correlation Changes**

### EU15 - Detrended Real GDP - Production Function (1)

	BE	DE	DK	ES	FR	GR	IT	NE	UK						
BE	--														
DE	u	--													
DK	u	u	--												
ES	d	u	u	--											
FR	d	u	u	u	--										
GR	d	d	d	d	d	--									
IT	d	u	u	u	u	u	--								
NE	u	d	u	u	u	d	u	--							
UK	d	u	u	u	u	u	u	u	--						

  

	UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	# 15	10	10	1	36
	% 41.7%	27.8%	27.8%	2.8%	100.0%
EMU12	# 9	3	8	1	21
	% 42.9%	14.3%	38.1%	4.8%	100.0%

	BE	DE	DK	ES	FR	GR	IT	NE	UK
BE	0.000								
DE	0.460	0.000							
DK	0.439	<b>1.541</b>	0.000						
ES	-0.307	<b>0.801</b>	<b>0.647</b>						
FR	-0.091	0.362	<b>0.885</b>	0.045	0.000				
GR	<b>-0.406</b>	0.049	-0.001	-0.157	-0.016	0.000			
IT	-0.264	<b>0.765</b>	<b>0.726</b>	0.044	0.126	0.014	0.000		
NE	0.316	-0.085	<b>1.404</b>	<b>0.485</b>	0.110	-0.300	0.441	0.000	
UK	-0.034	<b>1.533</b>	0.300	0.210	<b>0.532</b>	0.194	0.355	0.780	0.000

**Samples (Quarterly Data):** BE: 1983.2-2006.2; DE: 1991.4-2006.2; DK: 1983.2-2006.2; ES: 1986.2-2006.2; FR: 1983.2-2006.2; GR: 1983.2-2006.2; IT: 1983.2-2006.2; NE: 1983.2-2006.2; UK: 1983.2-2006.2.

**Breakpoint Date:** 1998.4.

**Symbols and Notation:** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; **UP:** number of non-significantly positive correlation changes; **Sign. UP:** number of significantly positive correlation changes; **DOWN:** number of non-significantly negative correlation changes; **Sign. DOWN:** number of significantly negative correlation changes.

EU15 - Detrended Real GDP, Production Function (1) - Pairwise Correlation Changes

## EU15 - Detrended Real GDP - Production Function (2)

	BE	DE	DK	ES	FR	GR	IT	NE	UK
BE	--								
DE	u	--							
DK	u	u	--						
ES	d	u	u	--					
FR	d	d	u	u	--				
GR	D	d	d	d	d	--			
IT	d	(u)	u	u	u	d	--		
NE	u	d	u	u	d	d	u	--	
UK	u	(u)	d	u	u	u	u	u	--

  

	UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	# 16	6	13	1	36
	% 44.4%	16.7%	36.1%	2.8%	100.0%
EMU12	# 7	2	11	1	21
	% 33.3%	9.5%	52.4%	4.8%	100.0%

	BE	DE	DK	ES	FR	GR	IT	NE	UK
BE	0.000								
DE	0.535	0.000							
DK	0.590	<b>1.088</b>	0.000						
ES	-0.034	0.533	0.449						
FR	-0.112	-0.014	0.445	0.003	0.000				
GR	<b>-0.348</b>	-0.182	-0.208	-0.184	-0.051	0.000			
IT	-0.115	<b>0.676</b>	0.466	0.074	0.127	-0.148	0.000		
NE	0.515	-0.041	<b>1.086</b>	0.347	-0.050	-0.058	<b>0.513</b>	0.000	
UK	0.297	<b>1.380</b>	-0.031	0.324	<b>0.587</b>	0.135	0.303	0.684	0.000

**Samples (Quarterly Data).** BE: 1983.2-2006.2; DE: 1991.4-2006.2; DK: 1983.2-2006.2; ES: 1986.2-2006.2; FR: 1983.2-2006.2; GR: 1983.2-2006.2; IT: 1983.2-2006.2; NE: 1983.2-2006.2; UK: 1983.2-2006.2.

**Breakpoint Date:** 1998.4.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; **UP:** number of non-significantly positive correlation changes; **Sign. UP:** number of significantly positive correlation changes; **DOWN:** number of non-significantly negative correlation changes; **Sign. DOWN:** number of significantly negative correlation changes.

EU15 - Detrended Real GDP, Production Function (2) - Pairwise Correlation Changes

**Detrended Real GDP**

**A - HPMV (KF)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	40	15	11	0	66	
	%	60.6%	22.7%	16.7%	0.0%	100.0%	
<b>EMU12</b>	#	25	6	5	0	36	
	%	69.4%	16.7%	13.9%	0.0%	100.0%	

**B - HPMV (KS)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	33	15	15	3	66	
	%	50.0%	22.7%	22.7%	4.5%	100.0%	
<b>EMU12</b>	#	22	4	8	2	36	
	%	61.1%	11.1%	22.2%	5.6%	100.0%	

**C - Production Function (1)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	15	10	10	1	36	
	%	41.7%	27.8%	27.8%	2.8%	100.0%	
<b>EMU12</b>	#	9	3	8	1	21	
	%	42.9%	14.3%	38.1%	4.8%	100.0%	

**D - Production Function (2)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	16	6	13	1	36	
	%	44.4%	16.7%	36.1%	2.8%	100.0%	
<b>EMU12</b>	#	7	2	11	1	21	
	%	33.3%	9.5%	52.4%	4.8%	100.0%	

**E - HPMV (KF)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	22	7	7	0	36	
	%	61.1%	19.4%	19.4%	0.0%	100.0%	
<b>EMU12</b>	#	14	3	4	0	21	
	%	66.7%	14.3%	19.0%	0.0%	100.0%	

**F - HPMV (KS)**

UP		Sign.	UP	DOWN	Sign.	DOWN	Total
<b>EU15</b>	#	19	6	8	3	36	
	%	52.8%	16.7%	22.2%	8.3%	100.0%	
<b>EMU12</b>	#	13	0	6	2	21	
	%	61.9%	0.0%	28.6%	9.5%	100.0%	

**Symbols and Notation:** #: number of observations; %: proportion out of total number of entries; **UP:** number of non-significantly positive correlation changes; **Sign. UP:** number of significantly positive correlation changes; **DOWN:** number of non-significantly negative correlation changes; **Sign. DOWN:** number of significantly negative correlation changes.

**Notes:** The six panels summarize inference on pairwise correlation changes between real GDPs, detrended using the techniques described in the paper. Panels A and B report summary figures for the same sample of countries as in Table 3. Panels C, D, E, and F report summary figures for the same sample of countries as in Table 4. **HMPV (KF):** Multivariate HP Filter (Kalman Filter); **HMPV (KS):** Multivariate HP Filter (Kalman Smoother).

**EU15 - Detrended Real GDP, Filter Comparison - Pairwise Correlation Changes**

### EU15 - Real GDP - Growth

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK	UP	Sign. UP	DOWN	Sign. DOWN	Total	
EU15	#	32	10	23	1	66							%	48.5%	15.2%	34.8%	1.5%	100.0%
EMU12	#	19	3	13	1	36							%	52.8%	8.3%	36.1%	2.8%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	u	d	--									
DK	u	u	u	--								
ES	u	d	d	u	--							
FI	u	u	u	u	u	--						
FR	d	u	u	u	u	d	--					
GR	d	d	d	d	d	u	d	--				
IT	d	u	u	u	u	u	u	d	--			
NE	u	u	u	u	d	u	u	d	u	--		
SE	u	u	u	u	d	u	d	d	d	u	--	
UK	u	u	u	d	u	d	u	d	u	d	u	--

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.118	0.000										
DE	0.148	-0.024	0.000									
DK	<b>0.506</b>	0.005	0.035	0.000								
ES	0.015	-0.322	-0.006	0.089	0.000							
FI	0.256	0.235	0.191	-0.067	0.090	0.000						
FR	-0.268	0.034	0.055	0.102	0.075	-0.057	0.000					
GR	-0.053	<b>-0.388</b>	-0.263	-0.121	-0.246	0.032	-0.188	0.000				
IT	-0.071	0.189	<b>0.525</b>	0.135	0.242	0.270	0.217	-0.241	0.000			
NE	<b>0.314</b>	0.086	0.099	<b>0.359</b>	-0.049	0.092	0.278	-0.186	<b>0.444</b>	0.000		
SE	<b>0.369</b>	0.162	<b>0.650</b>	0.489	-0.229	0.220	-0.095	-0.270	-0.198	<b>0.534</b>	0.000	
UK	0.308	0.125	0.182	-0.063	0.238	-0.104	<b>0.306</b>	-0.098	<b>0.411</b>	-0.123	0.124	0.000

Samples (Quarterly Data), Real GDP: AT: 1988.2-2006.3; BE: 1980.2-2006.3; DE: 1991.2-2006.3; DK: 1977.2-2006.3; ES: 1980.2-2006.3; FI: 1975.2-2006.3; FR: 1978.2-2006.3; GR: 1975.2-2006.3; IT: 1980.2-2006.3; NE: 1977.2-2006.3; SE: 1993.2-2006.3; UK: 1975.2-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation: u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

### EU15 - Real GDP, Growth - Pairwise Correlation Changes

### EU15 - Industrial Production Index - Growth

	AT	BE	DE	DK	ES	FI	FR	GR	IE	IT	LUX	NE	PT	SE	UK	UP	Sign. UP	DOWN	Sign. DOWN	Total
AT	--															58	18	25	4	105
BE	U	--														55.2%	17.1%	23.8%	3.8%	100.0%
DE	U	U	--																	
DK	U	U	d	--																
ES	d	U	U	U	--															
FI	U	U	U	d	U	--														
FR	U	U	d	U	U	U	--													
GR	U	U	U	d	(U)	U	U	--												
IE	U	U	U	U	U	U	U	U	--											
IT	U	U	U	U	U	U	U	U	d	--										
LUX	d	d	D	U	D	U	D	d	d	d	--									
NE	U	U	d	U	d	U	d	d	d	U	d	--								
PT	U	d	d	U	d	U	d	U	U	D	U	d	--							
SE	U	U	U	U	U	U	U	U	U	U	U	U	d	--						
UK	U	U	U	U	U	U	U	(U)	U	U	U	U	d	U	--					
EU15	#															58	18	25	4	105
	%															55.2%	17.1%	23.8%	3.8%	100.0%
EMU12	#															32	10	20	4	66
	%															48.5%	15.2%	30.3%	6.1%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IE	IT	LUX	NE	PT	SE	UK
AT	0.000														
BE	<b>0.369</b>	0.000													
DE	0.088	0.225	0.000												
DK	0.389	0.112	-0.058	0.000											
ES	-0.045	0.231	0.165	0.025	0.000										
FI	0.380	0.217	0.289	-0.004	<b>0.329</b>	0.000									
FR	0.187	0.213	-0.074	0.009	0.021	<b>0.465</b>	0.000								
GR	0.004	0.284	<b>0.382</b>	-0.063	<b>0.434</b>	0.290	0.131	0.000							
IE	0.174	0.139	<b>0.442</b>	0.008	-0.102	0.097	<b>0.198</b>	0.319	0.000						
IT	0.105	<b>0.508</b>	0.278	<b>0.227</b>	0.120	0.316	0.132	0.335	-0.005	0.000					
LUX	-0.019	-0.034	<b>-0.360</b>	<b>0.239</b>	<b>-0.388</b>	<b>0.096</b>	<b>-0.215</b>	-0.133	-0.057	-0.058	0.000				
NE	0.005	0.228	-0.018	0.326	-0.036	<b>0.374</b>	0.101	-0.014	-0.034	<b>0.355</b>	-0.030	0.000			
PT	0.016	-0.151	-0.195	0.122	-0.475	0.037	-0.097	-0.398	0.128	<b>-0.301</b>	0.091	-0.288	0.000		
SE	0.219	0.149	0.250	0.133	0.259	0.251	0.055	<b>0.779</b>	0.131	<b>0.435</b>	0.176	0.027	-0.009	0.000	
UK	0.287	0.352	0.217	0.230	<b>0.393</b>	0.322	<b>0.350</b>	<b>0.434</b>	0.088	<b>0.506</b>	0.043	0.222	-0.079	0.214	0.000

Samples (Quarterly Data). Industrial Production Index. AT: 1980.1-2007.1; BE: 1980.1-2007.1; DE: 1980.1-2007.1; DK: 1980.1-2007.1; ES: 1980.1-2007.1; FI: 1980.1-2007.1; FR: 1980.1-2007.1; GR: 1980.1-2007.1; LUX: 1980.1-2007.1; NE: 1980.1-2007.1; PT: 1980.1-2007.1; SE: 1980.1-2007.1; UK: 1980.1-2007.1.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. DOWN: number of significantly negative correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

### EU15 - Industrial Production Index, Growth - Pairwise Correlation Changes

**EU15 - Detrended Final Consumption Expenditure - HP**

	UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	# 38	6	16	6	66
	% 57.6%	9.1%	24.2%	9.1%	100.0%
EMU12	# 21	1	9	5	36
	% 58.3%	2.8%	25.0%	13.9%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	u	u	--									
DK	u	d	d	--								
ES	u	d	u	u	--							
FI	u	D	u	u	D	--						
FR	u	u	u	d	u	D	--					
GR	u	d	d	u	d	D	u	--				
IT	u	u	u	u	d	d	u	d	--			
NE	u	u	U	d	d	d	u	D	u	--		
SE	(U)	U	u	u	(U)	U	u	u	u	u	--	
UK	u	u	u	d	u	D	u	d	u	d	u	--

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.077	0.000										
DE	0.072	0.264	0.000									
DK	0.272	-0.343	-0.106	0.000								
ES	0.385	-0.140	0.317	0.600	0.000							
FI	0.021	<b>-0.564</b>	0.140	0.221	<b>-0.576</b>	0.000						
FR	0.173	0.151	0.028	-0.025	0.071	<b>-0.626</b>	0.000					
GR	0.009	-0.009	-0.088	0.140	-0.186	<b>-0.628</b>	0.149	0.000				
IT	0.117	0.033	0.550	0.020	-0.088	-0.087	0.034	<b>-0.275</b>	0.000			
NE	0.043	0.282	<b>0.641</b>	-0.478	-0.107	-0.104	0.116	-0.343	0.481	0.000		
SE	<b>0.769</b>	<b>1.069</b>	0.455	0.417	<b>0.892</b>	<b>1.114</b>	0.095	0.318	<b>0.702</b>	0.254	0.000	
UK	0.502	0.284	0.146	-0.403	0.039	<b>-0.621</b>	0.313	-0.092	0.259	-0.351	0.364	0.000

**Samples (Quarterly Data).** *Final Consumption Expenditure* : AT: 1988.1-2007.1; BE: 1980.1-2007.1; DE: 1991.1-2007.1; DK: 1977.1-2007.1; ES: 1980.1-2007.1; FI: 1975.1-2007.1; FR: 1978.1-2007.1; GR: 1975.1-2006.2; IT: 1980.1-2007.1; NE: 1977.1-2007.1; SE: 1993.1-2007.1; UK: 1975.1-2007.1.

**Breakpoint Date:** 1998.4.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level. # : number of observations; % : proportion out of total number of entries; **UP**: number of non-significantly positive correlation changes; **Sign. UP**: number of significantly positive correlation changes; **DOWN**: number of non-significantly negative correlation changes; **Sign. DOWN**: number of significantly negative correlation changes.

**EU15 - Detrended Final Consumption Expenditure, HP Filter - Pairwise Correlation Changes**

EUJ15 - Detrended Gross Fixed Capital Formation - HP

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK	UP	Sign. UP	DOWN	Sign. DOWN	Total
AT	--												25	18	21	2	66
BE	u	--											37.9%	27.3%	31.8%	3.0%	100.0%
DE	U	u	--														
DK	U	u	u	--													
ES	u	u	u	u	--								9	11	14	2	36
FI	U	d	U	u	d	--							25.0%	30.6%	38.9%	5.6%	100.0%
FR	u	u	u	u	d	u	--										
GR	U	d	u	d	d	d	d	--									
IT	d	d	d	u	D	d	d	d	--								
NE	U	u	U	U	U	U	U	D	d	--							
SE	u	U	u	u	u	u	u	d	d	U	--						
UK	u	d	u	d	u	d	u	d	u	u	(U)	--					

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.294	0.000										
DE	<b>0.292</b>	0.579	0.000									
DK	<b>0.926</b>	0.368	<b>0.463</b>	0.000								
ES	0.432	0.097	<b>0.445</b>	0.396	0.000							
FI	<b>0.850</b>	-0.053	<b>0.824</b>	0.459	-0.010	0.000						
FR	0.335	0.018	<b>0.340</b>	<b>0.585</b>	-0.058	0.172	0.000					
GR	<b>0.339</b>	-0.401	0.164	-0.286	-0.138	-0.029	-0.124	0.000				
IT	-0.116	-0.387	-0.114	0.111	<b>-0.649</b>	-0.636	-0.466	-0.329	0.000			
NE	<b>0.655</b>	0.277	<b>0.455</b>	<b>0.364</b>	<b>0.584</b>	<b>0.549</b>	<b>-0.302</b>	-0.305	0.000			
SE	0.553	<b>1.266</b>	0.651	0.621	0.391	0.765	0.019	-0.075	-0.298	<b>1.018</b>	0.000	
UK	0.217	-0.074	0.387	-0.170	0.269	-0.012	0.083	-0.049	0.083	0.254	<b>0.581</b>	0.000

Samples (Quarterly Data). Gross Capital Formation . AT: 1988.1-2006.3; BE: 1980.1-2006.2; DE: 1991.1-2006.3; DK: 1977.1-2006.3; ES: 1980.1-2006.3; FI: 1975.1-2006.2; FR: 1978.1-2006.3; GR: 1975.1-2006.2; IT: 1980.1-2006.3; NE: 1977.1-2006.3; SE: 1993.1-2006.3; UK: 1975.1-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; **UP**: number of non-significantly positive correlation changes; **Sign. UP**: number of significantly positive correlation changes; **DOWN**: number of non-significantly negative correlation changes; **Sign. DOWN**: number of significantly negative correlation changes.

EUJ15 - Detrended Gross Fixed Capital Formation, HP Filter - Pairwise Correlation Changes

EU15 - Shock 1 (Supply) - Blanchard-Quah Decomposition

Bootstrap Type: Iterated Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	D	--										
DE	d	u	--									
DK	d	d	u	--								
ES	d	d	d	d	--							
FI	d	u	d	D	d	--						
FR	d	u	u	u	d	u	--					
GR	d	d	D	d	u	u	d	--				
IT	d	u	d	d	d	d	u	u	--			
NE	u	d	D	u	u	D	u	u	u	--		
SE	u	d	U	u	U	d	U	u	u	u	--	
UK	d	d	d	u	u	d	d	u	u	d	d	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	27	3	31	5	66
	%	40.9%	4.5%	47.0%	7.6%	100.0%
EMU12	#	15	0	17	4	36
	%	41.7%	0.0%	47.2%	11.1%	100.0%

Bootstrap Type: Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	D	--										
DE	d	u	--									
DK	d	d	u	--								
ES	d	d	d	d	--							
FI	d	u	d	D	d	--						
FR	D	u	u	u	d	u	--					
GR	d	d	D	d	U	u	d	--				
IT	d	u	d	d	d	d	u	u	--			
NE	u	d	D	u	u	D	u	u	u	--		
SE	u	d	U	u	U	d	U	u	u	u	--	
UK	d	d	d	u	u	d	d	u	u	d	d	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	26	4	30	6	66
	%	39.4%	6.1%	45.5%	9.1%	100.0%
EMU12	#	14	1	16	5	36
	%	38.9%	2.8%	44.4%	13.9%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	-0.504	0.000										
DE	-0.161	0.046	0.000									
DK	-0.018	-0.224	0.401	0.000								
ES	-0.126	-0.321	-0.470	-0.145	0.000							
FI	-0.056	0.410	-0.159	-0.360	-0.220	0.000						
FR	-0.384	0.034	0.133	0.054	-0.140	0.231	0.000					
GR	-0.233	-0.293	-0.902	-0.112	0.526	0.086	-0.173	0.000				
IT	-0.242	0.254	-0.014	-0.116	-0.002	-0.012	0.014	0.067	0.000			
NE	0.248	-0.020	-0.488	0.105	0.130	-0.463	0.074	0.214	0.006	0.000		
SE	0.157	-0.023	0.845	0.303	0.727	-0.140	0.443	0.233	0.427	0.137	0.000	
UK	-0.068	-0.170	-0.111	0.246	0.036	-0.095	-0.118	0.121	0.213	-0.017	-0.194	0.000

Samples (Quarterly Data). AT: 1989.2-2006.3; BE: 1981.1-2006.3; DE: 1994.1-2006.3; DK: 1978.3-2006.3; ES: 1981.2-2006.3; FI: 1981.2-2006.3; FR: 1979.1-2006.3; GR: 1978.4-2006.2; IT: 1981.3-2006.3; NE: 1979.3-2006.3; SE: 1995.4-2006.3; UK: 1973.1-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

EU15 - Shock 1 (Supply) - Pairwise Correlation Changes

EU15 - Shock 2 (Demand 1) - Blanchard-Quah Decomposition

Bootstrap Type: Iterated Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	u	d	--									
DK	u	U	u	--								
ES	u	U	d	u	--							
FI	d	U	d	u	u	--						
FR	u	U	u	u	d	u	--					
GR	U	U	u	u	u	u	u	--				
IT	D	d	u	u	d	d	d	u	--			
NE	u	d	d	u	d	d	u	u	u	--		
SE	u	d	d	u	u	d	u	d	u	u	--	
UK	u	u	d	u	u	U	u	d	u	u	u	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	39	7	19	1	66
	%	59.1%	10.6%	28.8%	1.5%	100.0%
EMU12	#	17	5	13	1	36
	%	47.2%	13.9%	36.1%	2.8%	100.0%

Bootstrap Type: Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	u	d	--									
DK	u	U	u	--								
ES	u	U	d	u	--							
FI	d	U	d	u	u	--						
FR	u	U	u	u	d	u	--					
GR	U	U	u	u	u	u	u	--				
IT	D	d	u	U	d	d	d	u	--			
NE	u	d	d	u	d	d	u	u	u	--		
SE	u	d	d	u	u	d	u	d	u	u	--	
UK	U	u	d	u	u	U	u	d	u	u	u	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	37	9	19	1	66
	%	56.1%	13.6%	28.8%	1.5%	100.0%
EMU12	#	17	5	13	1	36
	%	47.2%	13.9%	36.1%	2.8%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.255	0.000										
DE	0.124	-0.444	0.000									
DK	0.159	<b>0.395</b>	0.192	0.000								
ES	0.002	<b>0.450</b>	-0.015	0.082	0.000							
FI	-0.075	<b>0.506</b>	-0.250	0.222	0.290	0.000						
FR	0.398	<b>0.346</b>	0.203	0.062	-0.168	0.184	0.000					
GR	<b>0.709</b>	<b>0.675</b>	0.253	0.248	0.220	0.143	0.120	0.000				
IT	<b>-0.296</b>	-0.226	0.139	<b>0.339</b>	-0.064	-0.090	-0.026	0.204	0.000			
NE	0.207	-0.230	-0.176	0.244	-0.045	-0.051	0.077	0.193	0.109	0.000		
SE	0.136	-0.128	-0.158	0.378	0.165	-0.094	0.108	-0.113	0.113	0.187	0.000	
UK	<b>0.311</b>	0.154	-0.292	0.009	0.212	<b>0.294</b>	0.116	-0.224	0.198	0.046	0.243	0.000

Samples (Quarterly Data). AT: 1989.2-2006.3; BE: 1981.1-2006.3; DE: 1994.1-2006.3; DK: 1978.3-2006.3; ES: 1981.2-2006.3; FI: 1981.2-2006.3; FR: 1979.1-2006.3; GR: 1978.4-2006.2; IT: 1981.3-2006.3; NE: 1979.3-2006.3; SE: 1995.4-2006.3; UK: 1973.1-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

EU15 - Shock 2 (Demand 1) - Pairwise Correlation Changes

EU15 - Shock 3 (Demand 2) - Blanchard-Quah Decomposition

Bootstrap Type: Iterated Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	d	d	--									
DK	d	u	u	--								
ES	u	d	d	d	--							
FI	d	<b>D</b>	u	u	u	--						
FR	d	u	d	d	u	u	--					
GR	d	d	u	d	d	U	d	--				
IT	u	<b>D</b>	<b>U</b>	u	d	u	d	d	--			
NE	d	u	d	u	d	d	u	u	d	--		
SE	d	u	d	d	<b>D</b>	d	d	<b>D</b>	d	d	--	
UK	d	d	d	d	d	d	U	u	u	d	u	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	22	<b>3</b>	37	<b>4</b>	66
	%	33.3%	<b>4.5%</b>	54.5%	<b>7.6%</b>	100.0%
EMU12	#	13	<b>2</b>	19	<b>2</b>	36
	%	36.1%	<b>5.6%</b>	50.0%	<b>8.3%</b>	100.0%

Bootstrap Type: Standard Independent Bootstrap

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	--											
BE	u	--										
DE	d	d	--									
DK	d	u	u	--								
ES	u	d	d	d	--							
FI	d	<b>D</b>	u	u	u	--						
FR	d	u	d	d	u	u	--					
GR	d	d	u	d	d	<b>U</b>	d	--				
IT	u	<b>D</b>	<b>U</b>	u	d	u	d	d	--			
NE	d	u	d	u	d	d	u	u	d	--		
SE	d	u	d	d	<b>D</b>	d	d	<b>D</b>	d	d	--	
UK	d	d	d	d	d	d	U	u	u	d	u	--

		UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	22	<b>3</b>	37	<b>4</b>	66
	%	33.3%	<b>4.5%</b>	54.5%	<b>7.6%</b>	100.0%
EMU12	#	13	<b>2</b>	19	<b>2</b>	36
	%	36.1%	<b>5.6%</b>	50.0%	<b>8.3%</b>	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.083	0.000										
DE	-0.026	-0.406	0.000									
DK	-0.041	0.077	0.044	0.000								
ES	0.110	-0.091	-0.152	-0.141	0.000							
FI	-0.017	<b>-0.694</b>	0.132	0.185	0.106	0.000						
FR	-0.279	0.005	-0.244	-0.109	0.060	<b>0.352</b>	0.000					
GR	-0.070	-0.041	0.064	-0.233	-0.009	0.580	-0.247	0.000				
IT	0.144	<b>-0.391</b>	<b>0.490</b>	0.117	-0.247	0.064	-0.205	-0.271	0.000			
NE	-0.255	0.044	-0.064	0.163	-0.373	-0.191	0.133	0.196	-0.078	0.000		
SE	-0.518	0.228	-0.103	-0.274	<b>-0.638</b>	-0.143	-0.174	<b>-0.697</b>	-0.109	-0.310	0.000	
UK	-0.026	-0.052	-0.109	-0.293	-0.061	-0.229	<b>0.306</b>	0.010	0.140	-0.158	0.018	0.000

Samples (Quarterly Data): AT: 1989.2-2006.3; BE: 1981.1-2006.3; DE: 1994.1-2006.3; DK: 1978.3-2006.3; ES: 1981.2-2006.3; FI: 1981.2-2006.3; FR: 1979.1-2006.3; GR: 1978.4-2006.2; IT: 1981.3-2006.3; NE: 1979.3-2006.3; SE: 1995.4-2006.3; UK: 1973.1-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

EU15 - Shock 3 (Demand 2) - Pairwise Correlation Changes

NAFTA

Business Cycle Measure	Filtering Method	CA-MEX	CA-USA	MEX-USA
Real GDP	HPUV (KF)	0.169 u	-0.161 d	<b>0.724 U</b>
	HPUV (KS)	0.091 u	-0.227 d	0.597 U
	HPMV (KF)	0.085 u	-0.164 d	<b>0.566 U</b>
	HPMV (KS)	0.078 u	-0.227 d	0.538 U
	Growth	<b>-0.169 D</b>	-0.237 d	0.140 u
Industrial Production Index	Growth	0.154 u	-0.130 d	0.160 u
Final Consumption Expenditure	HP	<b>0.730 U</b>	0.043 u	<b>0.965 U</b>
Gross Fixed Capital Formation	HP	<b>0.485 U</b>	0.103 u	0.239 u
Stock Market Index	Return <sup>(a)</sup>	<b>0.328 U</b>	-0.064 d	-0.114 d
Trade Activity	HP	0.050 u	-0.023 d	0.046 u

PCC between	Filtering Method	CA	MEX	USA
Stock Market Index and Real GDP	HP	0.374 u	<b>0.649 U</b>	0.452 u
Trade Activity and Real GDP	HP	0.004 u	<b>0.240 U</b>	0.045 u

**Samples (Quarterly Data).** *Real GDP*. CA: 1980.1-2006.3; MEX: 1980.1-2006.3 (from 1980.2 in Real GDP Growth Rates, from 1980.4 in HPMV); USA: 1974.2-2006.3. *Industrial Production Index*. CA: 1980.1-2007.1; MEX: 1980.2-2007.1; USA: 1980.1-2007.1. *Final Consumption Expenditure*. CA: 1980.1-2006.4; MEX: 1980.1-2006.4; USA: 1980.1-2006.4. *Gross Fixed Capital Formation*. CA: 1980.1-2006.4; MEX: 1980.1-2006.4; USA: 1980.1-2006.4. *Trade Activity*. CA: 1981.1-2006.3; MEX: 1980.1-2006.3; USA: 1981.1-2006.3. *Stock Market Index*. CA: 1982.1-2006.3; MEX: 1983.1-2006.3; USA: 1974.2-

**Samples (Monthly Data).** *Stock Market Index (Returns)*. CA: 1982.2-2006.11; MEX: 1983.2-2006.11; USA: 1982.2-2006.11.

**Breakpoint Date (Quarterly Data):** 1993.4. **Breakpoint Date (Monthly Data):** 1993.12.

<sup>(a)</sup>Monthly Data.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U**: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level.

NAFTA - All Measures - Pairwise Correlation Changes

EU15 - Detrended Trade Activity - HP

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK	UP	DOWN	Sign. UP	DOWN	Sign. DOWN	Total
AT	--												44	3	19	0	66	
BE	u	--											66.7%	4.5%	28.8%	0.0%	100.0%	
DE	d	u	--															
DK	u	u	u	--														
ES	u	u	d	u	--													
FI	u	u	(U)	u	(U)	--							20	2	14	0	36	
FR	u	u	u	u	u	u	--						55.6%	5.6%	38.9%	0.0%	100.0%	
GR	u	u	u	u	u	u	u	--										
IT	u	u	u	u	u	(U)	u	u	--									
NE	u	(U)	u	u	u	u	u	u	u	--								
SE	u	u	u	u	u	u	d	u	u	u	--							
UK	u	u	u	u	u	u	u	u	u	u	u	--						

	AT	BE	DE	DK	ES	FI	FR	GR	IT	NE	SE	UK
AT	0.000											
BE	0.210	0.000										
DE	-0.012	0.164	0.000									
DK	0.217	0.150	0.125	0.000								
ES	0.083	0.457	-0.058	0.277	0.000							
FI	<b>0.804</b>	0.376	<b>0.936</b>	<b>0.661</b>	<b>0.516</b>	0.000						
FR	0.099	0.095	0.066	<b>0.290</b>	0.106	<b>0.558</b>	0.000					
GR	0.461	<b>0.848</b>	0.145	0.081	<b>0.498</b>	<b>0.535</b>	0.381	0.000				
IT	0.217	0.301	0.264	0.246	0.261	<b>0.413</b>	<b>0.207</b>	0.313	0.000			
NE	<b>0.331</b>	<b>0.539</b>	0.033	0.180	0.403	<b>0.831</b>	<b>0.340</b>	<b>0.493</b>	0.372	0.000		
SE	0.126	0.099	0.231	0.027	0.209	0.073	-0.083	<b>0.691</b>	0.063	0.157	0.000	
UK	0.490	0.014	0.666	<b>0.476</b>	0.265	0.259	<b>0.388</b>	0.231	0.146	0.341	0.477	0.000

Samples (Quarterly Data). Trade Activity . AT: 1988.1-2006.3; BE: 1980.1-2006.3; DE: 1991.1-2006.3; ES: 1980.1-2006.3; FI: 1977.1-2006.3; FR: 1978.1-2006.3; GR: 1975.1-2006.2; IT: 1980.1-2006.3; NE: 1977.1-2006.3; SE: 1993.1-2006.3; UK: 1975.1-2006.3.

Breakpoint Date: 1998.4.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); UP: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

EU15 - Detrended Trade Activity, HP Filter - Pairwise Correlation Changes

EU15 - Stock Market Index - Monthly Return

	AT	BE	DE	DK	ES	FI	FR	GR	IE	IT	NE	PT	UK	UP	Sign. UP	DOWN	Sign. DOWN	Total
EU15	#	25	7	40	6	78								32.1%	9.0%	51.3%	7.7%	100.0%
EU15	%	32.1%	9.0%	51.3%	7.7%	100.0%								25.5%	9.1%	54.5%	10.9%	100.0%
EMU12	#	14	5	30	6	55								25.5%	9.1%	54.5%	10.9%	100.0%
EMU12	%	25.5%	9.1%	54.5%	10.9%	100.0%								25.5%	9.1%	54.5%	10.9%	100.0%

	AT	BE	DE	DK	ES	FI	FR	GR	IE	IT	NE	PT	UK
AT	--												
BE	d	--											
DE	D	d	--										
DK	d	d	u	--									
ES	d	d	u	d	--								
FI	D	D	u	d	u	--							
FR	d	d	u	u	u	u	--						
GR	d	d	d	d	d	d	u	--					
IE	d	d	u	d	d	D	d	d	--				
IT	D	d	u	d	d	d	u	d	d	--			
NE	d	d	u	u	u	u	u	d	d	u	--		
PT	D	d	u	d	u	u	u	d	d	d	d	--	
UK	u	u	u	u	u	u	u	u	d	u	u	d	--

	AT	BE	DE	DK	ES	FI	FR	GR	IE	IT	NE	PT	UK
AT	0.000												
BE	-0.062	0.000											
DE	<b>-0.246</b>	-0.165	0.000										
DK	-0.180	-0.036	0.065	0.000									
ES	-0.148	-0.206	<b>0.116</b>	-0.050	0.000								
FI	<b>-0.354</b>	<b>-0.372</b>	0.140	-0.179	0.014	0.000							
FR	-0.194	-0.194	<b>0.111</b>	0.150	0.094	<b>0.249</b>	0.000						
GR	-0.185	-0.159	-0.038	-0.192	-0.031	-0.003	0.012	0.000					
IE	-0.065	-0.143	0.083	-0.122	-0.160	<b>-0.235</b>	-0.050	-0.123	0.000				
IT	<b>-0.371</b>	-0.227	0.143	-0.133	-0.017	-0.051	<b>0.128</b>	-0.203	-0.172	0.000			
NE	-0.104	-0.117	0.098	0.056	0.021	0.055	<b>0.099</b>	-0.011	-0.026	0.035	0.000		
PT	<b>-0.474</b>	-0.244	0.046	-0.100	0.027	0.017	0.004	-0.273	-0.263	-0.009	-0.133	0.000	
UK	0.046	0.005	<b>0.309</b>	0.012	0.022	0.098	0.120	0.010	-0.074	<b>0.187</b>	-0.150	0.000	

Samples (Monthly Data) Stock Market Index (Returns). AT: 1986.2-2006.11; BE: 1990.2-2006.11; DE: 1974.7-2006.11; DK: 1990.1-2006.11; ES: 1987.2-2006.11; FI: 1987.2-2006.11; FR: 1987.8-2006.11; GR: 1988.10-2006.11; IE: 1983.2-2006.11; IT: 1994.11-2006.11; NE: 1983.2-2006.11; PT: 1993.1-2006.11; UK: 1978.2-2006.11.

Breakpoint Date: 1998.12.

Symbols and Notation. u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); U: positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); D: negative correlation change (significant at 5% level). Entries in parentheses: bias-correction is applied. Correlation Changes in bold: significant at either 5% or 10% level. #: number of observations; %: proportion out of total number of entries; UP: number of non-significantly positive correlation changes; Sign. UP: number of significantly positive correlation changes; DOWN: number of non-significantly negative correlation changes; Sign. DOWN: number of significantly negative correlation changes.

EU15 - Stock Market Index, Monthly Return - Pairwise Correlation Changes

HONG KONG - USA

Business Cycle Measure	Filtering Method	HK-USA
<b>Real GDP</b>	HPMV (KF)	<b>-0.519 (D)</b>
	HPMV (KS)	-0.214 d
	Growth	0.015 u
<b>Final Consumption Expenditure</b>	HP	<b>-0.585 D</b>
<b>Gross Fixed Capital Formation</b>	HP	-0.629 d
<b>Stock Market Index</b>	Return <sup>(a)</sup>	-0.022 d
<b>Trade Activity</b>	HP	-0.192 d

PCC between	Filtering Method	HK
<b>Stock Market Index and Real GDP</b>	HP	0.142 u
<b>Trade Activity and Real GDP</b>	HP	0.218 u

**Samples (Quarterly Data).** *Real GDP* : 1975.4-2006.3 (HPMV), 1974.2-2006.3 (Growth). *Final Consumption Expenditure, Gross Fixed Capital Formation* : 1973.1-2006.4. *Trade Activity* : 1973.1-2006.3. *Stock Market Index* : 1974.7-2006.11.

**Breakpoint Date (Quarterly Data):** 1983.3. **Breakpoint Date (Monthly Data):** 1983.9.

<sup>(a)</sup>Monthly Data.

**Symbols and Notation.** u: non-significantly positive correlation change; U: positive correlation change (significant at 10% level); **U** positive correlation change (significant at 5% level); d: non-significantly negative correlation change; D: negative correlation change (significant at 10% level); **D**: negative correlation change (significant at 5% level). **Entries in parentheses:** bias-correction is applied. **Correlation Changes in bold:** significant at either 5% or 10% level.

Hong Kong/USA - All Measures -  
Pairwise Correlation Changes

Bootstrap Type Resampling Scheme	Simulated Data		Monte Carlo Experiment			
	"True" Statistics		Coverage Probability		Statistical Power	
	Correlations		Percentile CI		Percentile CI	
	First Sample	Change	90%	95%	90%	95%
<b>EXPERIMENT 1</b>						
NOB	-0.48	<b>1.36</b>	71.6%	81.4%	100.0%	100.0%
OB	-0.48	<b>1.37</b>	74.8%	83.3%	99.5%	99.3%
Stationary	-0.48	<b>1.37</b>	77.0%	84.3%	99.7%	99.7%
Iterated - OB	-0.48	<b>1.37</b>	87.6%	93.6%	96.4%	94.2%
Iterated - Stationary	-0.48	<b>1.36</b>	86.7%	94.0%	98.7%	98.3%
Iterated - Parametric	-0.48	<b>1.36</b>	98.9%	99.1%	98.6%	98.6%
<b>EXPERIMENT 2</b>						
NOB	-0.39	<b>1.31</b>	79.9%	85.6%	99.9%	99.9%
OB	-0.39	<b>1.31</b>	89.3%	93.0%	99.9%	99.7%
Stationary	-0.39	<b>1.31</b>	88.6%	93.4%	100.0%	100.0%
Iterated - OB	-0.39	<b>1.31</b>	96.4%	98.0%	98.0%	97.0%
Iterated - Stationary	-0.39	<b>1.31</b>	93.3%	97.0%	99.9%	99.3%
Iterated - Parametric	-0.39	<b>1.31</b>	90.7%	95.1%	99.6%	99.1%
<b>EXPERIMENT 3</b>						
NOB	0.12	<b>0.64</b>	77.0%	84.1%	87.1%	82.1%
OB	0.12	<b>0.64</b>	79.6%	87.8%	85.4%	76.9%
Stationary	0.11	<b>0.64</b>	79.0%	86.2%	87.2%	82.9%
Iterated - OB	0.12	<b>0.64</b>	88.4%	94.8%	69.2%	55.4%
Iterated - Stationary	0.12	<b>0.64</b>	87.9%	92.3%	76.0%	63.4%
Iterated - Parametric	0.12	<b>0.64</b>	92.1%	97.1%	78.3%	69.4%
<b>EXPERIMENT 4</b>						
NOB	0.40	<b>0.42</b>	83.6%	89.5%	73.4%	63.4%
OB	0.40	<b>0.42</b>	80.1%	87.9%	61.4%	50.5%
Stationary	0.40	<b>0.42</b>	85.4%	90.7%	73.6%	63.0%
Iterated - OB	0.40	<b>0.42</b>	93.6%	96.4%	34.6%	24.4%
Iterated - Stationary	0.40	<b>0.42</b>	91.6%	95.4%	55.0%	40.7%
Iterated - Parametric	0.40	<b>0.42</b>	94.6%	97.6%	63.1%	48.1%

**DGPs are calibrated by estimating corresponding models on real data**

Experiment 1: output gaps (KF) - Austria and Denmark - DGP: VAR(4)

Experiment 2: output gaps (KF) - Austria and Finland - DGP: VAR(3)

Experiment 3: output gaps (KF) - France and UK - DGP: VAR(3)

Experiment 4: output gaps (KF) - Belgium and Netherlands - DGP: VAR(4)

**Bootstrap Type - Resampling Scheme**

NOB: Non-Overlapping Blocks (Fixed Length)

OB: Overlapping Blocks (Fixed Length)

Stationary: Overlapping Blocks (Random Length)

Parametric: Model-Based (Correct Specification)

**Coverage Probability and Statistical Power**

Percentile CI: Percentile Confidence Interval

**Notes:** This table reports the results of four different Monte Carlo experiments. We use 10000 replications to estimate the "true" statistics in the simulated data through the indicated DGP; 1000 Monte Carlo replications to estimate empirical coverage probabilities and statistical powers when the bootstrap type is NOB, OB, and Stationary. With Iterated - OB we run 500 Monte Carlo replications, 700 with Iterated - Stationary. The length of the first subsample is 41 in Experiments 1 and 2, 81 in Experiment 3, 73 in Experiment 4. The length of the second subsample is 31 in all the experiments. All innovations are independent and identically distributed as bivariate normals.

Monte Carlo Experiments (1)

Bootstrap Type		Monte Carlo Experiment																			
		Simulated Data					Coverage Probability					Statistical Power									
		"True" Statistics		Percentile CI			BCa CI			BC CI			Percentile CI			BCa CI			BC CI		
Resampling Scheme		First Sample	Change	90%	95%	90%	95%	90%	95%	90%	95%	90%	95%	90%	95%	90%	95%	90%	95%		
<b>SI</b>		0.12	-0.35																		
<b>Iterated - SI</b>		0.12	-0.35																		
<b>EXPERIMENT 5</b>																					
<b>SI</b>		0.02	0.33	89.1%	93.3%	89.0%	93.2%	89.0%	93.4%	89.0%	93.4%	52.4%	39.5%	51.9%	41.3%	51.7%	40.0%				
<b>Iterated - SI</b>		0.02	0.33	88.9%	94.0%	89.0%	93.2%	89.0%	93.4%	89.0%	93.4%	49.0%	36.3%	51.9%	41.3%	51.7%	40.0%				
<b>EXPERIMENT 6</b>																					
<b>SI</b>		0.02	0.33	87.7%	93.4%	87.6%	92.9%	87.7%	92.9%	87.7%	92.9%	50.5%	39.5%	49.7%	39.1%	49.7%	38.7%				
<b>Iterated - SI</b>		0.02	0.33	89.1%	94.3%	89.0%	93.2%	89.0%	93.4%	89.0%	93.4%	46.0%	34.0%	49.7%	39.1%	49.7%	38.7%				
<b>EXPERIMENT 7</b>																					
<b>SI</b>		0.08	-0.69	89.5%	95.0%	88.9%	93.7%	88.9%	94.0%	88.9%	94.0%	97.2%	94.8%	97.3%	94.7%	97.1%	94.7%				
<b>Iterated - SI</b>		0.08	-0.69	91.4%	96.1%	89.0%	93.2%	89.0%	93.4%	89.0%	93.4%	96.1%	92.1%	97.3%	94.7%	97.1%	94.7%				
<b>EXPERIMENT 8</b>																					
<b>SI</b>		0.22	-0.46	88.6%	93.9%	88.6%	94.1%	88.4%	94.3%	88.4%	94.3%	51.1%	39.8%	51.9%	39.9%	51.8%	39.4%				
<b>Iterated - SI</b>		0.21	-0.46	91.6%	96.0%	89.0%	93.2%	89.0%	93.4%	89.0%	93.4%	45.3%	33.3%	51.9%	39.9%	51.8%	39.4%				
<b>DGPs are calibrated by estimating corresponding models on real data</b>																					
Experiment 5: shock1 - Denmark and Finland - DGP: VAR(0)																					
Experiment 6: shock2 - Denmark and Italy - DGP: VAR(0)																					
Experiment 7: shock3 - Belgium and Finland - DGP: VAR(0)																					
Experiment 8: shock1 - Germany and Spain - DGP: VAR(0)																					
<b>Bootstrap Type - Resampling Scheme</b>																					
SI: Standard Independent																					
<b>Notes:</b> This table reports the results of four different Monte Carlo experiments. We use 10000 replications to estimate the "true" statistics in the simulated data through the indicated DGP, 1000 Monte Carlo replications to estimate empirical coverage probabilities and statistical powers when the bootstrap type is SI. With iterated - SI we run 700 Monte Carlo replications. The length of the first subsample is 71 in Experiments 5 and 7, 70 in Experiment 6, and 20 in Experiment 8. The length of the second subsample is 31 in all the experiments. All innovations are independent and identically distributed as bivariate normals.																					

## Monte Carlo Experiments (2)

<b>Bootstrap Type</b>	<b>Great Moderation</b>		<b>Monte Carlo Experiment</b>	
	<b>Parameters</b>		<b>Coverage Probability</b>	
Resampling Scheme	$K_{GM}$	$t_{GM}$	Percentile CI	
			90%	95%
	<b>EXPERIMENT 9</b>			
<b>Iterated - Stationary</b>	0.48	33	88.1%	94.0%
<b>Iterated - Parametric</b>	0.48	33	90.4%	94.9%
	<b>EXPERIMENT 10</b>			
<b>Iterated - Stationary</b>	0.48	20	91.0%	95.6%
<b>Iterated - Parametric</b>	0.48	20	91.9%	96.4%
	<b>EXPERIMENT 11</b>			
<b>Iterated - Stationary</b>	0.55	18	88.1%	93.1%
<b>Iterated - Parametric</b>	0.55	18	88.9%	94.3%

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**DGPs are calibrated by estimating corresponding models on real data**

Experiment 9: output gaps (KS) - Canada and USA - DGP: VAR(4)

Experiment 10: output gaps (KS) - Canada and USA - DGP: VAR(4)

Experiment 11: output gaps (KS) - France and Italy - DGP: VAR(3)

**Bootstrap Type - Resampling Scheme**

Stationary: Overlapping Blocks (Random Length)

Parametric: Model-Based (Correct Specification)

**Coverage Probability**

Percentile CI: Percentile Confidence Interval

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**Notes:** This table reports the results of three different Monte Carlo experiments simulating the presence of the Great Moderation in the business cycle data. We run 700 Monte Carlo replications to estimate empirical coverage probabilities. The length of the first subsample is 56 in Experiments 9 and 10, 73 in Experiment 11. The length of the second subsample is 51 in Experiments 9 and 10, 31 in Experiment 11. All innovations are independent and identically distributed as bivariate normals. Innovation variances are scaled down by a factor  $K_{GM}$  at the date of occurrence of the Great Moderation (in the table, it is indicated as  $t_{GM}$ ); covariance terms are scaled down accordingly at the beginning of the second subsample so that conditional and unconditional correlations remain unchanged from the first sample to the second sample. VAR coefficients stay constant over the whole sample.

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### Monte Carlo Experiments (3)